



**CHESTERFIELD COUNTY
PURCHASING DEPARTMENT
CHESTERFIELD, VIRGINIA
Invitation for Bid**



IFB Number: **16-1458**

Title: Fire Apparatus, for Mobile Breathing Air

Issue Date: May 5, 2016

Sealed Bids Due and Opening: May 24, 2016, 2:30 P.M.

Bid Opening Location: Chesterfield County Purchasing Department
9901 Lori Road
Lane B. Ramsey Building, 3rd Floor, Room 303
Chesterfield, VA 23832

Inquiries: Questions which may arise as a result of this solicitation may be addressed to Jacque Comuzzi, Senior Contract Officer, at (804) 748-1834, or by email to purchasing@chesterfield.gov. Inquiries must be received at least seven (7) business days prior to the due date in order to be considered. Contact initiated by a bidder concerning this solicitation with any other County representative, not expressly authorized elsewhere in this document, is prohibited. Any such unauthorized contact may result in disqualification of the bidder from this transaction.

All prices shall be F.O.B. Destination: Chesterfield County Fire & EMS Logistics Facility, 6600 Public Works Court, Chesterfield, VA 23832.

Freight, delivery costs, and incidental charges shall be included.

My signature below certifies that:

- I agree to abide by all conditions of this bid and that I am authorized to sign this bid;
 - the accompanying bid is not the result of, or affected by, any unlawful act of collusion with another person or company engaged in the same line of business or commerce, or any act of fraud punishable under § 18.2-498.1, et. seq. of the *Code of Virginia*. Furthermore, I understand that fraud and unlawful collusion are crimes under the Virginia Governmental Frauds Act, the Virginia Government Bid Rigging Act, the Virginia Antitrust Act, and Federal Law, and can result in fines, prison sentences, and civil damage awards;
 - that the accompanying bid is in compliance with applicable provisions of the State and Local Government Conflict of Interests Act (§ 2.2-3100, et. seq. of the *Code of Virginia*). Specifically, without limitation, no County/School Board employee or a member of the employee's immediate family shall have a proscribed personal interest in a contract; and
 - that the accompanying bid is in accordance with applicable provisions of the Virginia Public Procurement Act, Art. 6 Ethics in Public Contracting (§ 2.2-4367, et. seq. of the *Code of Virginia*), and any other applicable law as set forth therein.
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In compliance with this Invitation for Bids and to all conditions imposed therein the undersigned offers and agrees to furnish the goods/services in accordance with this signed bid.

Complete Legal Name of Firm: _____

Order From Address: _____

Remit To Address: _____

Signature: _____ **Email:** _____

Name (type/print): _____ **Title:** _____

Fed ID No.: _____ **Phone:** (____) _____ **Fax:** (____) _____

This page must be returned with the Bid Form.

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ATTACHMENT A - Virginia State Corporation Commission (SCC) Registration
Information

ATTACHMENT B- Specifications

I. PURPOSE

The purpose of this Invitation for Bid (IFB) is to solicit bids for the purchase of a Mobile Breathing Air Apparatus for the Chesterfield County Fire & EMS Department.

II. SCOPE OF WORK/SPECIFICATIONS

- A.** Specifications are included in ATTACHMENT B. Information regarding use of a brand name is addressed in Section **V. SPECIAL TERMS AND CONDITIONS**, page 12 item **C**. Information regarding designation of “no substitute” items is addressed in Section **V. SPECIAL TERMS AND CONDITIONS**, page 16, Item K. Variance in specifications deemed not to be material, in the sole discretion of the County, may be allowed in determining the lowest responsive and responsible bidder.
- B.** Any equipment required in these specifications which is not listed by the manufacturer as standard shall meet the minimum requirements stated.
- C.** The apparatus shall comply with the following standards:
 - 1. All engineering designs and construction methods shall be the current industry standard, and shall comply with the most recently published edition of the National Fire Protection Association Standards for Automotive Fire Apparatus (NFPA 1901) and Breathing Air Quality (NFPA 1989) and any other applicable NFPA standard.
 - 2. The fully loaded vehicle shall be capable of meeting or exceeding all performance requirements of these standards.
 - 3. Other standards specifically identified throughout the specifications included in Attachment B.

III. INSTRUCTIONS

A. Submission and Receipt of Bids

- 1. Sealed bids shall be received in the Chesterfield County Purchasing Department, 9901 Lori Road, Lane B. Ramsey Building, 3rd Floor, Room 303, P.O. Box 51, Chesterfield, Virginia, 23832 until, but no later than the specified time and date of opening as designated in the invitation, and then publicly opened and read aloud. Bids shall be submitted in a sealed envelope with the IFB number and due date and time written on the outside of the envelope. The time of receipt shall be determined by the time clock stamp in the Purchasing Department. Bidders are responsible for ensuring that their bids are stamped by Purchasing Department personnel before the deadline. Late bids shall be rejected.
- 2. Bids or changes to a bid response shall not be accepted via fax or E-mail.
- 3. In the event that Chesterfield County government offices are not operating under normal staffing levels or if the location for bid submission, bid opening or a pre-bid conference is inaccessible due to inclement weather or other emergency situations at the published time, the bid submission, bid opening or pre-bid conference will default to the next regular business day at the same time.
- 4. All bids shall be signed in the space provided for a signature on the cover sheet and returned. If the bidder is a partnership or corporation, the bidder shall show the title of the

individual signing the bid, and if the individual is not the president or vice president of the partnership or corporation, if requested, the bidder shall submit proof that the individual has the authority to bind the partnership or corporation.

5. Bids concerning separate bid invitations are not to be combined on the same form or placed in the same envelope. Bids submitted in violation of this provision may not be considered.
6. Unless otherwise specified, bidders are to complete and return the Bid Form furnished by the County.
7. No bid shall be altered or amended after the specified time for opening.
8. If you are an individual with a disability and require a reasonable accommodation in order to participate in this procurement, please notify the Purchasing Department at (804)748-1617 as soon as possible.
9. For information pertaining to the bid tabulation, decision to award and/or award on this procurement transaction, bidders may access public notification electronically at:
www.chesterfield.gov/purchasing.

- B. Amendments or Requests to Withdraw Bids by a Bidder Prior to Bid Opening:** A bidder may amend and/or withdraw their bid before the due date and time designated for receipt of bids. All requests from a bidder to return their bid shall be in writing, addressed to the Purchasing Department, and signed by a person authorized to represent the person or firm that submitted the bid. The bidder may be contacted by telephone to verify the authorization of the return request and the signature involved if there is doubt as to the document's authenticity. All amendments to the bid are to be initialed by an individual authorized to represent the bidder.

IV. GENERAL TERMS AND CONDITIONS

- A. Addenda:** Any changes or supplemental instructions to this solicitation shall be in the form of written addenda. All addenda are downloadable from the Purchasing Department web site at: www.chesterfield.gov/purchasing. Each bidder is responsible for obtaining all addenda posted at the Purchasing Department website or by calling (804) 748-1617. Acknowledgement of receipt of all addenda shall be in the space provided within the solicitation or by returning a copy of each signed addendum. Failure to do so may result in rejection of the bid. All addenda issued shall become part of the solicitation and all resulting contract documents.
- B. Appropriation of Funds:** The continuation of the terms, conditions, and provisions of a resulting contract beyond June 30 of any year, the end of the County's fiscal year, are subject to approval and ratification by the Chesterfield County Board of Supervisors and appropriation by them of the necessary money to fund said contract for each succeeding year. In the event of non-appropriation of funds, the contract shall be automatically terminated with no recourse for the Contractor.
- C. Assignment of Contract:** The County and Contractor bind themselves and any successors and assigns to the contract. The employees of the Contractor will perform the work necessary to fulfill the contract. The Contractor shall not assign, sublet, subcontract or transfer any of its interest in the contract without written consent of the County. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the County, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the County and Contractor.

- D. Audit of Vendor Records:** Contractor shall maintain full and accurate records with respect to all matters covered under the contract including, without limitation, accounting records, written policies and procedures, time records, telephone records, reproduction cost records, travel and living expense records and any other supporting evidence necessary to substantiate charges and compliance related to the contract. Contractor's records shall be open to inspection and subject to audit and/or reproduction, during normal working hours by the County and its employees, agents or authorized representatives to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by Contractor pursuant to this contract. Such records subject to examination shall also include, without limitation, those allocations as they may apply to costs associated with the contract. The County shall have access to such records from the effective date of the contract, for the duration of the contract, and until two (2) years after the date of final payment by the County to the Contractor pursuant to this contract. The County's employees, agents or authorized representatives shall have access to the Contractor's facilities, shall have access to all necessary records, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this paragraph.
- E. Change Orders:** Change orders must be approved by the County prior to work being performed.
- F. Commitment to Diversity and Chesterfield Businesses:** Chesterfield County is a growing progressive community consisting of an increasingly diverse population. This diversity provides for a dynamic and robust community that promotes growth. Chesterfield County believes that all of its citizens should benefit from this economic growth without regard to race, color, religion or economic status. The County is committed to increasing the opportunities for participation of minority-owned businesses, women-owned businesses, and businesses located in Chesterfield County to ensure diversity in its procurement and contract activities. These businesses are encouraged to respond to all solicitations. In addition, the County strongly encourages each Contractor and/or supplier with which the County contracts to actively solicit minority-owned businesses, women-owned businesses, and businesses located in the County as subcontractors/suppliers for their projects.

Upon award/completion of work, the County will require the Contractor to furnish data regarding subcontractor/supplier activity with minority-owned businesses, women-owned businesses, and businesses located in Chesterfield County on a Certification of Subcontractor/Supplier Activity form. The form will be provided to the Contractor by the Purchasing Department. This information will enable the County to document the dollar level of activity and measure the success of its purchasing and contracting efforts in this endeavor.

Definitions:

Chesterfield Business (CB) - any private business enterprise, located within the jurisdictional boundaries of Chesterfield County.

Minority-Owned Business (MOB) – a business that is at least 51% owned by one or more minority individuals who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more minority. (*Code of Virginia 2.2-4310*)

Women-Owned Business (WOB) - a business that is at least 51% owned by one or more

women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest is owned by one or more women who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more women. (*Code of Virginia* 2.2-4310)

- G. **Contractor Background Checks:** In order to preserve the integrity and security of County government operations, contract workers may be required to undergo a criminal background check conducted by Chesterfield County. The County will conduct these checks for any worker it believes will have unsupervised access to County designated Security Sensitive areas. Contract workers providing goods, services or construction in these designated areas are required to confine themselves to the area of the work. Based on the results of the background check, the contract worker may be disqualified from providing work/services for Chesterfield County.
- H. **Contractor's Authorization To Transact Business:** In accordance with §2.2-4311.2 of the *Code of Virginia*, any bidder organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the *Code of Virginia*, or as otherwise required by law. Any bidder organized or authorized to transact business in the Commonwealth of Virginia pursuant to Title 13.1 or Title 50 of the *Code of Virginia* shall include in its bid the identification number issued to it by the State Corporation Commission. Any bidder that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 of the *Code of Virginia*, or as otherwise required by law, shall include in its bid a statement describing why the bidder is not required to be so authorized. This information shall be provided on Attachment A titled "Virginia State Corporation Commission (SCC) Registration Information". Failure to provide the required information may result in the rejection of the bid. The Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth of Virginia, if so required under Title 13.1 or Title 50 of the *Code of Virginia*, to be revoked or cancelled at any time during the term of the contract. The County may void any contract with a Contractor if the Contractor fails to remain in compliance with the provisions of this section.
SEE ATTACHMENT A.
- I. **Copyrights or Patent Rights:** The bidder certifies by submission of a bid that there has been no violation of copyrights or patent rights in manufacturing, producing, or selling the product or services shipped or ordered as a result of this solicitation. The Contractor shall, at his own expense, defend any and all actions or suits charging such infringement, and will save Chesterfield County, its officers, employees, and agents harmless from any and all liability, loss, or expense incurred by any such violation, or alleged violation.
- J. **Default:** In case of failure to deliver goods or services in accordance with the contract terms and conditions, the County may, without prejudice to any other right or remedy, and after giving the Contractor seven (7) calendar days written notice, terminate the employment of the Contractor and procure such goods or services from other sources. In such event, the Contractor shall be liable to the County for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which the County may have.
- K. **Drug Free Workplace:** (*Code of Virginia* 2.2-4312) This provision only applies to contracts valued in excess of \$10,000.

During the performance of this contract, the Contractor agrees to (i) provide a drug-free

workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

L. Employment Discrimination: (*Code of Virginia 2.2-4311*) This provision only applies to contracts valued in excess of \$10,000.

1. During the performance of the contract, the Contractor agrees as follows:
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
 - b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
 - c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
2. The Contractor shall include the provisions of the foregoing paragraphs a, b, and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

M. Environmental Management Procedures: The Contractor shall comply with all federal, state and local environmental laws and regulations and any additional requirements that may be included in or attached to the solicitation. For work done for the County, the Contractor must also meet all Chesterfield County Environmental Management System (EMS) requirements. For questions or additional information regarding environmental requirements for the County, please contact Chesterfield County's General Services – Environmental Division at (804) 717-6531. For questions regarding environmental requirements for the Chesterfield County Public Schools, please contact Environmental Health and Safety at (804) 318-8048.

N. ePayables: Chesterfield County recognizes the importance of timely payments to our vendors. Therefore, we offer our vendors the opportunity to enroll in our ePayables program. This program allows us to make card payments to our vendors and features an online portal to facilitate payments as well as reduce payment processing times. Our ePayables program is

mutually beneficial and is our preferred method of payment. If you choose not to enroll in this program, payments will be made by check and mailed through the postal service which could impact how quickly you receive payments. No action is required for vendors already enrolled in the program. Please contact the Accounting Department at (804) 748-1673 with questions.

- O. Faith-Based Organizations:** (*Code of Virginia 2.2-4343.1*) Chesterfield County does not discriminate against faith-based organizations.
- P. Finance/Interest Charges:** Finance and/or interest charges imposed by the Contractor on any invoice shall not be paid by the County.
- Q. Governing Law:** Contracts shall be governed by the provisions hereof and by the laws of the Commonwealth of Virginia, excepting the law governing conflicts of laws. Disputes arising out of this contract shall be resolved in the Courts of the Commonwealth of Virginia, in and for Chesterfield County.
- R. Illegal Aliens:** (*Code of Virginia 2.2-4311.1*) The Contractor agrees that he does not, and shall not, during the performance of the contract, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.
- S. Indemnification:** The Contractor shall hold harmless and indemnify the County, the School Board, if applicable, and its officers, officials, employees and agents against any and all injury, loss or damage arising out of the Contractor's negligent or intentionally wrongful acts or omissions.
- T. Mistakes in Bids**
 - 1. Mistakes discovered following bid opening but prior to award: If there is a significant and obvious disparity between the prices of the lowest apparent responsive bidder and other bidders, the low bidder may be contacted by the purchasing authority to confirm the bid price. This does not relieve a bidder from the responsibility for the submission of a correct bid. If the bidder then alleges a mistake in the bid and can provide clear and convincing evidence that supports the existence of a clerical error to the satisfaction of the purchasing authority, the bid may be withdrawn in accordance with the withdrawal procedure provided herein.
 - 2. Mistakes discovered after award: Bids containing mistakes by bidders shall not be withdrawn after award of a contract or issuance of a purchase order.
- U. Modification of the Contract:** The contract shall not be amended, modified, or otherwise changed except by the written consent of the Contractor and the County given in the same manner and form as the original signing of the contract.
- V. Negotiation:** In accordance with 2-47 of the County Code, if the bid from the lowest responsible bidder exceeds available funds, the county may negotiate with the apparent low bidder to obtain a contract price within available funds. Such negotiation may include, but is not necessarily limited to, adjustment of the bid price and changes in the bid scope or requirements in order to bring the bid within the amount of available funds. Negotiation shall be conducted by the purchasing director, or his designee, with assistance from the user department.
- W. Online Terms of Service:** The bidder shall submit Terms of Service with the bid for any online activity (i.e., hosted, online, portal, website, support site, etc.) that are required to use or support the product or service being provided.

- X. Payment:** If the Contractor performs all of the obligations of the contract to the satisfaction of the County, the County shall pay the Contractor for the performance of the work in the manner and within the time specified in the contract documents, which shall be consistent with the provisions of Section 2.2-4352 and 2.2-4354 of the *Code of Virginia*.

Furthermore, the Contractor shall, within seven days after receipt of payment by the County, take the following actions:

1. Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under that contract; or
2. Notify the County and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

- Y. Precedence of Terms:** All Special Conditions contained in this solicitation that may be in variance or conflict with these General Terms and Conditions shall have precedence over these General Terms and Conditions. If no changes or deletions to General Terms and Conditions are made in the Special Conditions, then the General Terms and Conditions shall prevail in their entirety.

- Z. Preferences:** In accordance with Section 2.2-4324 (B) of the *Code of Virginia*, whenever the lowest responsive and responsible bidder is a resident of any other state and such state under its laws allows a resident contractor of that state a percentage preference, a like preference shall be allowed to the lowest responsive and responsible bidder who is a resident of Virginia and is the next lowest bidder. If the lowest responsive and responsible bidder is a resident of any other state and such state under its laws allows a resident contractor of that state a price-matching preference, a like preference shall be allowed to responsive and responsible bidders who are residents of Virginia. If the lowest bidder is a resident contractor of a state with an absolute preference, the bid shall not be considered. The Commonwealth's Department of General Services shall post and maintain an updated list on its website of all states with an absolute preference for their resident contractors and those states that allow their resident contractors a percentage preference, including the respective percentage amounts. For purposes of compliance with this section, the County will rely upon the accuracy of the information posted on this website. In accordance with Section 2.2-4324 (D) of the *Code of Virginia*, for the purposes of this section, a Virginia person, firm or corporation shall be deemed to be a resident of Virginia if such person, firm or corporation has been organized pursuant to Virginia law or maintains a principal place of business within Virginia.

In accordance with Section 2.2-4328 of the *Code of Virginia* and Article 4, Section 2-47 of the County Code, in the case of a tie bid, the County may give preference to goods, services, and construction produced in the County or provided by persons, firms or corporations having principal places of business in the County. If such choice is not available, preference shall then be given to goods and services produced in the Commonwealth of Virginia pursuant to *Code of Virginia* 2.2-4324 or where goods are being offered, and existing price preferences have already been taken into account, preference shall be given to the bidder whose goods contain the greatest amount of recycled content. If no County or Commonwealth of Virginia preference is applicable, the tie shall be decided by lot.

- AA. Proprietary Information:** Section 2.2-4342(F) of the *Code of Virginia* states: "Trade secrets or proprietary information submitted by a bidder, offeror, or Contractor in connection with a procurement transaction or prequalification application submitted pursuant to subsection B of 2.2-4317 shall not be subject to the Virginia Freedom of Information Act (2.2-3700 et seq.); however, the bidder, offeror, or Contractor shall (i) invoke the protections of this section prior to

or upon submission of the data or other materials, (ii) identify the data or other materials to be protected, and (iii) state the reasons why protection is necessary.” If the exemption from disclosure provided by Section 2.2-4342(F) of the *Code of Virginia* is not properly invoked then the bids will be subject to disclosure pursuant to applicable law.

- BB. Quality Expectation Statement:** Chesterfield County, through its quality initiative, is a recognized leader in providing quality products and services at the most effective cost possible. Therefore, the County fully expects, requires, and shall hold all Contractors, and all agents, staff, representatives, and subcontractors of the Contractor, responsible for, and accountable to, the highest quality standards of professional workmanship, products and services. In the spirit of the County’s quality initiative, the Contractor shall be expected to become a member of the team and perform or provide all work, services and products with a target of “zero defects – zero rework”.
- CC. References:** If requested, the bidder shall provide references which substantiate past work performance and experience in the type of work required for the contract. The County may contact all references furnished by bidders. The right is further reserved by the County to contact references other than, and/or in addition to, those furnished by the bidder.
- DD. Schools:** When goods and/or services are for the benefit of Chesterfield County Schools, the contract shall be entered into on behalf of the Chesterfield County Public Schools.
- EE. Sensitive Information Handling:** Any information in the possession of the County/Schools which is specific to an employee, student, citizen, County/School business function, private business entity or other government entity which is not generally available to the public shall be designated Sensitive Information. Contract workers will under no circumstances remove Sensitive Information from County/Schools facilities. Any Sensitive Information which must reside temporarily on a hard drive or portable storage device (USB Key, CD ROM, memory card, etc.) for processing must remain within the County/Schools facility, or utilize strong encryption methods such as AES with a minimum key size of 128, but a preference for 256 or higher. No Sensitive Information may be remotely accessed by contract workers by dial in, VPN, web interface or other means without expressed consent of the department head and the Information Security Manager (County) or Director of Technology (Schools). Any access to County/Schools information by contract workers from outside the County/Schools intranet shall be in accordance with existing Information Systems Technology (IST)/Chesterfield County Public Schools (CCPS) Technology department security policies and procedures. Contract worker network connected computer equipment will be subject to all applicable IST/CCPS policies and procedures. Any exception to this application of policies shall be approved by the CCPS Department of Technology/County Information Security Manager and Chief Information Officer or designees.
- FF. Taxes:** Chesterfield County is exempt from payment of Federal Excise Tax and State and Local Sales and Use Tax on all tangible personal property purchased or leased by Chesterfield County for its use or consumption. Tax exemption certification will be furnished upon request. Sales tax, however, is paid by Chesterfield County on materials and supplies that are installed by a Contractor and become a part of real property. Contractors are not exempt from paying taxes on these materials and supplies, as they are considered to be a cost of doing business and should be considered in pricing when preparing a bid.
- GG. Termination:** It shall be the sole right of the County to terminate the contract upon written notification to the Contractor.
- HH. Termination for Breach or Non-Performance:** If the Contractor fails to perform the work

promptly and diligently, or if the Contractor breaches the Contract in any other way, the County may:

1. after providing the Contractor with 15 days written notice, supply any workmen, equipment or materials necessary to ensure that the work is performed promptly and diligently. The County may deduct the cost of supplying additional workmen, equipment or materials from payments due to the Contractor;
2. terminate the contract, enter upon the premises, take possession of all equipment, materials or appurtenances, and employ any person or persons to finish the work.

If the contract is terminated by the County, the Contractor shall not be entitled to receive any further payment from the County until completion of the work has occurred. After completion of the work, the County shall pay to the Contractor the amount of the unpaid balance due to the Contractor at the time the contract was terminated minus the cost incurred by the County to complete the work. If the cost incurred by the County to complete the work exceeds the unpaid balance due to the Contractor, the Contractor shall be due no money from the County and, instead, the Contractor shall pay to the County the difference between the unpaid balance due and the County's cost to complete the work.

II. Vendor Rewards/Gift Programs: It is the policy of the County not to participate in any rewards programs offered by vendors and not to accept any gifts or gift cards, or other rewards from vendors for purchases made by the County. If you customarily provide, or if you plan to provide, rewards programs, gifts or gift cards, or other rewards to your customers for purchases made by such customers, you must identify this fact in your bid and demonstrate in the bid how you have applied the value of such rewards to a reduction in the price of the goods and/or services being offered to the County.

JJ. Waiver of One Breach Not Waiver of Others: No waiver by the County or its agents or employees of any breach of this contract by the Contractor shall be construed as a waiver of any other or subsequent breach of the contract by the Contractor. All remedies provided by this contract are cumulative, and in addition to each and every other remedy under the law.

KK. Withdrawal of Bids

1. Withdrawal: Construction (*Code of Virginia 2.2-4330*)

A bidder for a public construction contract, other than a contract for construction or maintenance of public highways, may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake in the bid, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or unintentional omission of a quantity of work, labor, or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid that shall be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

The bidder shall give notice in writing to the Director of Purchasing of his claim of right to

withdraw his bid within two business days after the conclusion of the bid opening procedure and shall submit original work papers with such notice. The work papers, documents and materials shall, at the bidders request, be considered as trade secrets or proprietary information subject to compliance with the provisions of *Code of Virginia* §2.2-4342(F).

Within 5 business days, the County will notify the bidder in writing of its decision. If the County denies the withdrawal of a bid under the provisions of this section, it shall state in such notice the reasons for its decision and award the contract to such bidder at the bid price, provided such bidder is a responsible and responsive bidder. At the same time that the notice is provided, the County will also return all work papers and copies thereof to the bidder.

2. Withdrawal: Other than Construction

A bidder for a public contract may request withdrawal of his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or unintentional omission of a quantity of work, labor, or material made directly in the compilation of the bid which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of work papers, documents or materials used in the preparation of the bid sought to be withdrawn. If a bid contains both clerical and judgment mistakes, a bidder may request withdrawal of his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid which shall be clearly shown by objective evidence drawn from inspection of work papers, documents or materials used in the preparation of the bid sought to be withdrawn. Such notice shall be sent to the Purchasing Department prior to award. The work papers, documents and materials shall, at the bidders request, be considered as trade secrets or proprietary information subject to compliance with the provisions of *Code of Virginia* §2.2-4342(F).

V. SPECIAL TERMS AND CONDITIONS

- A. **Acceptance of Goods/Services:** The goods and/or services delivered under a resulting contract shall remain the property of the Contractor until a physical inspection is made, and thereafter accepted to the satisfaction of the County. In the event the goods and/or services supplied to the County are found to be defective or do not conform to specifications, the County reserves the right to cancel the order upon notice (verbal or in writing) to the Contractor and return goods to the Contractor at the Contractor's expense.
- B. **Acceptance Period of Bids:** All bids submitted shall be binding for sixty (60) calendar days following bid opening date. The sixty (60) calendar day acceptance period may be extended by mutual consent of both parties.
- C. **Brand Name or Equal:** In accordance with §2.2-4315 of the Code of Virginia, unless otherwise provided in the Invitation for Bid, the name of a certain brand, make or manufacturer shall not restrict bidders to the specific brand, make or manufacturer named and shall be deemed to convey the general style, type, character, and quality of the article desired. **However, the manufacturers referenced are preferred by the County to provide consistency and interchangeability for the Fire Department fleet.** Any article that the County in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted.

Unless otherwise provided in the Invitation for Bid, no proposed equal will be considered prior to receipt of bids. If bidding a proposed equal, the bidder is responsible to clearly and specifically identify the article being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable the County to determine if the article offered meets the requirements of the solicitation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid non-responsive. Unless the bidder clearly indicates in the bid that the article offered is an equal, such bid will be considered to offer the brand name referenced in the solicitation. It shall be understood that the burden of proof for an equal article shall be and remain the sole responsibility of the bidder. The County's failure to object to a manufacturer will not constitute a waiver of any of the requirements of the contract documents, and all products furnished must conform to such requirements.

The Contractor shall be responsible for making all changes in the work necessary to adapt and accommodate "equal" products which are submitted and accepted in lieu of the products whose name and model numbers are specified and around which the drawings, where applicable, were developed. The necessary changes shall be made at the Contractor's expense. The Contractor shall submit sufficient data concerning the proposed equal products and resulting necessary changes to the project to the County documenting that the proposed product(s) can be properly integrated with the project.

- D. Condition of Items:** All materials used for the manufacture or construction of supplies, materials, or equipment covered by this solicitation shall be new. Unless otherwise provided in the solicitation, products bid must be new, the latest model, the best quality, and the highest grade workmanship.
- E. Descriptions:** The descriptions of items in the specifications are equally as important as the manufacturer's model/product numbers. If the bidder finds any inconsistency between the manufacturer's model/product numbers and the description, the bidder shall notify the Chesterfield County Purchasing Department prior to the submission of the bid.
- F. Delivery Instructions/Notification:**
 - 1. The Mobile Breathing Air Apparatus shall be delivered over the road under its own power. Rail or truck freight shipment of the mobile breathing air apparatus is not acceptable.
 - 1. The Contractor must schedule an appointment for all deliveries by contacting Captain Dave Schweiger at (804) 717-6400, at least 24 hours prior to the anticipated delivery.
 - 2. All deliveries to the Chesterfield County Fire and EMS Logistics facility, 6600 Public Works Court, Building D, Chesterfield, Virginia 23832 shall be between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday. Chesterfield County Fire and EMS Department reserves the right to refuse delivery if notification is not given.
 - 3. The Contractor shall provide the following documents upon vehicle delivery:
 - a. All documents required by the Virginia Department of Motor Vehicles for titling/registration. Vehicles shall be provided with a free and clear title.
 - b. Original invoice and Certificate of Origin.

G. Factory Trips:

1. Pre-Construction/Engineering Conference: Prior to the commencement of any construction, and within 45 days after the contract is finalized, an engineering conference shall take place at the manufacturing facility. The purpose of this conference shall be to review the detail of any designs, drawings or measurements that may be required in the construction of the apparatus. Prior to the engineering conference, two sets of engineering blueprints shall be provided, specific for the proposed apparatus, drawn to scale on a CAD system. The blueprints shall show front, rear, driver and passenger sides and top views, overall dimensions, proposed compartment sizes and features, location of all emergency warning and work lights and all other components. To scale drawings shall include a set of drawings with the proposed paint scheme and graphics for all four sides and the top view. Final approval drawings shall be submitted to the County within 15 days after the engineering conference.
2. Chassis Inspection, Post Paint: One (1) inspection trip shall be scheduled at the manufacturing facility after the body and cab are painted and mounted to the chassis with most major structural components in place.
3. Final Inspection: One (1) inspection trip shall be scheduled at the manufacturing facility, at the completion of all work and prior to delivery of the apparatus.
4. All expenses for food, lodging and transportation for Chesterfield County personnel associated with these factory trips shall be the responsibility of the County, and shall not be included in the bid pricing.

H. Inspection of Bidder's Facilities: The County reserves the right, at its option, to conduct on-site inspections of any bidder's facilities prior to award. The results of any such inspection will be considered by the County in determining bidder's capabilities of successfully administering the contract.

I. Insurance Requirements: **The Contractor and insurance company should carefully review the insurance requirements set forth below. The Contractor shall furnish a copy of a certificate of insurance in accordance with the requirements before the County will execute a contract. The Contractor shall be responsible for maintaining current certificates of insurance on file with the County. The certificate of insurance does not need to accompany the bid.**

The Contractor shall purchase and maintain in force, at his own expense, such insurance as will protect him and the County from claims which may arise out of or result from the Contractor's execution of the work, whether such execution be by himself, his employees, agents, subcontractors, or by anyone for whose acts any of them may be liable. The insurance coverages shall be such as to fully protect the County, the Consulting Professional (if applicable) and the general public from any and all claims for injury and damage resulting by any actions on the part of the Contractor or his forces as enumerated above.

The Contractor shall furnish insurance in satisfactory limits, and on forms and of companies that are acceptable to the County's Attorney and/or Risk Management Director and shall require and show evidence of insurance coverages on behalf of any subcontractors (if applicable), before entering into any agreement to sublet any part of the work to be done under this contract.

The Contractor shall maintain during the initial term and any additional terms of this contract the following equivalent coverage and minimum limits:

1. Commercial General Liability: \$1,000,000 Combined Single Limit per occurrence.
2. Automobile Liability: \$1,000,000 Combined Single Limit per occurrence
3. Workers' Compensation: Virginia Statutory limits
4. Employers' Liability: \$100,000 each accident

If an insurance certificate is used as evidence of the required insurance the insurance certificate:

- a. The County of Chesterfield, their officers, employees, and agents, shall be named as an additional insured by endorsement to the policy; Additional insured status applies to all work of the named insured performed on behalf of Chesterfield County for this policy period.
- b. Must reflect that the policies are endorsed to require no less than 30 days notice of cancellation or other change in coverage to the County;
- c. Must have an authorized signature;
- d. The Certificate Holder should be listed as:
Chesterfield County
c/o Purchasing Department
P.O. Box 51
Chesterfield, VA 23832-0001

J. Manuals: Two (2) paper bound copies and two (2) electronic copies (CD or equal) of the following manuals shall be provided at vehicle delivery:

1. Parts: The parts manual shall contain the following information:
 - 1.1 Job number
 - 1.2 Table of Contents
 - 1.3 Part numbers with full descriptions
 - 1.4 Parts section sorted in functional groups, reflecting a major system, component or assembly.
 - 1.5 Parts section in alphabetical order
 - 1.6 Instructions on how to locate parts
 - 1.7 Available on-line resources

The manual shall be written for the apparatus specifically being purchased by the County. No generic manuals for multiple manufacturers will be accepted.

2. Service: Service manual supplements containing service information for factory installed components shall be provided. The manual shall be written for the apparatus specifically being purchased by the County. No generic manuals for multiple manufacturers will be accepted
3. Body/Chassis software: The vendor shall supply the required diagnostic software for the body and chassis to the purchaser for County access by shop personnel.

4. Chassis Operation: Chassis operation (manufacturer's standard) manuals shall be provided.
5. Wiring: "As built" wiring diagrams for all electrical components shall be provided, to include the following:
 - 5.1 A detailed wire harness list showing circuit numbers and functions.
 - 5.2 When optional electrical devices or systems are ordered, additional corresponding schematics shall accompany those options.
 - 5.3 The owner's manual shall include a package of relevant electrical power distribution drawings.
 - 5.4 The drawings shall be inserted in a protective holder that shall include all of the "as built" drawings that correspond to the specific vehicle being supplied. No generic, standard or manually modified drawings will be acceptable.
 - 5.5 The Contractor shall provide an amp load test certification. The documentation shall provide the end user with the vehicle's operating load requirements and remaining reserve capacity.

K. No Substitute: Products other than that of the manufacturer's specified will not be considered for award under this solicitation. The following manufacturer's products have been designated as "no substitute".

1. Michelin: Tires
2. FireCom: Intercom systems
3. Whelen: Emergency lighting

L. Pricing:

1. Prices shall be stated in units of quantity specified in the Pricing Schedule. In case of a discrepancy in extension of prices in the bid, the unit price shall govern.
2. The bid price offered shall be the net cost to the County. The County will not participate in any refund, rebate or other similar program between the bidder and any manufacturer requiring any check, form, application, etc., to be signed or endorsed to the bidder or manufacturer. Any rebate offered in the County's name shall be kept by the County.
3. The apparatus price shall include freight, dealer preparation cost and inspection. No federal excise tax shall be included in the bid.
4. Add pre-payment language

M. Service – Factory Authorized Service Facility:

1. **A service facility shall be provided, and shall be factory certified with factory trained technicians AT THE TIME OF BID SUBMISSION.** The County reserves the right to perform an inspection of the service facility to verify compliance.
2. The service center shall be responsible for responding to service and parts requirements within twenty-four (24) hours after notification by the County. The service facility shall be located no more than fifty (50) miles from the Chesterfield County Fire and EMS Logistics Facility. The County will use the Directions tool at www.mapquest.com to verify mileage.
3. Bidders should provide warranty, service and parts facility location, contact person and telephone/fax numbers in the space provided on the Bid Form.

N. Special Qualifications:

1. The manufacturer of the apparatus shall have experience in the construction and service of fire apparatus. References shall be provided as required on the Bid Form.
2. The manufacturer shall be certified to operate a Quality Management System under the requirements of International Organization for Standardization (ISO) standard 9001. A copy of the certificate of compliance is required prior to contract award, and should be submitted with the bid.

O. Subcontracts:

No portion of the work shall be subcontracted without prior written consent of the County. In the event that the Contractor desires to subcontract some part of the work specified herein, the Contractor shall furnish the County the names, qualifications and experience of their proposed subcontractors. The Contractor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract and compliance with applicable General Terms and Conditions (including, without limitation, the non-discrimination and drug-free workplace provisions).

P. Submittals: If requested, the bidder shall submit the following information to the County within seven days of notification:

1. The County's specifications are included in **ATTACHMENT B**, and shall be submitted with the bid response. **Bidders submitting specifications from the manufacturer as a supplement to the County's specifications shall submit them in the same sequence as the County's published specifications. Failure to do so may be cause to reject the bid.**
2. **The following information is required, and should be submitted with the WITH THE BID RESPONSE; if not submitted with the bid response, it will be required within three (3) days of notification by the County:**
 - a. Detailed drawings, 20" x 30" showing the appearance of the Mobile Breathing Air apparatus is in compliance with the base specifications. The drawings shall consist of the left side, right side, front, rear and top elevation views. All dimensional measurements and major components shall also be shown on these drawings.
 - b. All warranty certificates specified.
 - c. All certifications, testing techniques and miscellaneous items specified.

Q. Testing/Inspection: The County reserves the right to conduct any test/inspection it may deem advisable to assure that goods and/or services conform to the specifications in the contract documents. The County reserves the right to employ an independent testing laboratory to conduct tests of materials, etc. as the County may deem necessary to assure complete compliance with the requirements of the specifications. The Contractor shall offer full cooperation with personnel in the employ of the County in making these tests. If such goods and services are found to be defective in any respect, due to the fault of the Contractor or his subcontractors, the Contractor shall defray all the expenses of uncovering the work, of examination and testing, and of satisfactory reconstruction.

R. Training:

1. Pricing shall include travel and services of an authorized manufacturer's representative(s) to provide on-site training, upon delivery of the vehicle, relative to operation, general features and maintenance of the apparatus. Training shall be provided for six (6) consecutive days, which may include one (1) weekend day, between the hours of 8:00 a.m. to 5:00 p.m. During this time sufficient repetitive learning opportunities must be provided by the manufacturer to allow various shifts to complete the training requirements. The authorized manufacturer's representative(s) shall provide thorough instruction in the use, operation, maintenance and testing of the vehicle. Training must include written operating instructions and electronic training aids that depict the step-by-step operation of the vehicle. Training materials shall include materials that can be used to train subsequent new operators. The authorized manufacturer's representative(s) shall review the maintenance instructions with Chesterfield Fire/EMS personnel to acquaint them with maintenance procedures and obtaining support service for the vehicle.
2. Training scheduling shall be coordinated with Lieutenant Rob Blanton, Apparatus Coordinator, at (804) 387-0333. The County reserves the right to video record the training session for distribution to appropriate County personnel.
4. A minimum of one (1) repair and maintenance training class shall be provided for a maximum of six (6) County Heavy Vehicle Maintenance Shop employees.
5. The Contractor shall provide a DVD or flash drive/memory stick of the completed training. This DVD or flash drive/memory stick shall also include a deployable training program for future personnel training on the vehicle operations, maintenance and use.

S. Vehicles, Licensed Dealer:

Bidders shall be licensed with the Virginia Motor Vehicle Dealer Board at the time of bid submission.

T. Vehicles (Miscellaneous Requirements):

1. Vehicle shall meet all applicable Federal, Commonwealth of Virginia, and OSHA safety requirements.
2. Inspection as required by Title 46.1, Chapter 4, Article 10 of the Code of Virginia shall be performed by dealer prior to delivery.
3. Service preparation shall be performed by the dealer, according to manufacturer's specifications. If vehicles are delivered without proper dealer preparation, it shall be the dealer's responsibility to pick up, service and re-deliver.
4. Dealer logos of any type shall not be allowed on vehicles purchased by the County.
5. Any previous or current safety issues concerning recalls by the manufacturer must be addressed prior to delivery and acceptance of vehicles by the County.

U. Warranty:

1. Total Apparatus (Chassis and Body): A two (2) year, bumper to bumper warranty shall be provided on the apparatus as ordered, effective when vehicle is placed in service. The warranty shall cover the apparatus for any defect related to material and workmanship under normal emergency service use. A copy of the warranty certificate is required prior to contract award, within three (3) days of the request.
2. Additional warranties for specific components are required as described in the specifications in ATTACHMENT B. Unless otherwise specified, all warranties shall cover the apparatus for any defect related to material and workmanship under normal fire apparatus use and service. A copy of all warranty certificates is required prior to contract award, within three (3) days of the request.

VII. BID FORM**A. BASIS OF AWARD**

Award will be made to the lowest responsive and responsible bidder based on the Unit Price.

B. PRICING SCHEDULE

The bidder agrees to furnish the goods/services as specified herein, and in compliance with the terms and conditions of this Invitation for Bid at the following price(s):

Quantity	Description	Unit Price
1 each	Mobile Breathing Air Apparatus, as specified. New, unused, current production model year.	\$ _____
Chassis Year/Manufacturer/Model:		
Body Year/Manufacturer/Model:		

C. DELIVERY SCHEDULE

1. Bidders are required to state the time of proposed delivery. Unless otherwise specified, bid the earliest delivery possible.
2. Bidders **MUST** insert a definitive time frame IN CALENDAR DAYS, within which delivery will be made after receipt of order (ARO). **INDEFINITE TERMS SUCH AS “PROMPTLY”, “STOCK”, “AS SOON AS POSSIBLE”, “APPROXIMATELY”, ETC., WILL NOT BE GIVEN CONSIDERATION. THE FAILURE OF A BIDDER TO PROVIDE A DEFINITE DELIVERY TIME WILL RESULT IN THE BID BEING REJECTED AS NONRESPONSIVE IN ITS ENTIRETY OR, WHEN APPLICABLE, FOR THE ITEM SPECIFIED.**

Delivery in calendar days _____ after receipt of order.

D. ADDENDA

Bidder hereby acknowledges receipt of and incorporation of all requirements of any addenda issued for this Invitation for Bids:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

E. BUSINESS CLASSIFICATION

Bidders are requested to provide the following information to Chesterfield County regarding their business. This information is for statistical purposes and, except in the case of tie bids, all firms submitting bids will receive equal consideration (refer to Clause F of the General Terms and Conditions). Bidder shall indicate whether they are classified as a:

Minority-Owned Business: Yes ☐ No ☐

Women-Owned Business: Yes ☐ No ☐

Chesterfield Business: Yes ☐ No ☐

F. BIDDER'S CHECKLIST

This checklist is provided to assist bidders in submitting a responsive bid and may not be inclusive of all solicitation requirements. Bidders are expected to carefully read the entire solicitation and verify that the following issues have been addressed prior to submission of a bid:

- ☐ Provide all requested information on cover page, including a signature.
- ☐ Bid Form, in its entirety (Pages 20-22)
- ☐ Receipt of all addenda issued has been acknowledged on page 20, item D, or if required, signed and submitted with the bid.
- ☐ Attachment A-Virginia State Corporation Commission (SCC) Registration Information must be completed and returned with the bid submission.
- ☐ Attachment B-Specifications (pages 24-82) must be completed and returned with the bid submission

G. CONTRACTOR'S REPRESENTATIVE

Please furnish the name(s) of a contact person, address, telephone, fax number, and email address for placing orders:

Name(s): _____

Address: _____

Phone (voice): _____ Fax: _____

Cell Phone: _____ Email Address: _____

H. MANUFACTURER'S REPRESENTATIVE – FACTORY TRAINED AND CERTIFIED SERVICE FACILITY PROVIDING WARRANTY SERVICE AND PARTS

Please furnish the name(s) of a contact person, address, telephone, fax number, and email address for warranty service and parts:

Name(s): _____

Address: _____

Phone (voice): _____ Fax: _____

Cell Phone: _____ Email Address: _____

I. PAYMENT TERMS

If discounts for prompt payment are offered by the bidder, it is required that a minimum of twenty (20) days be allowed for payment. Discounts for prompt payment will not be considered in the evaluation of bids. Discounts for prompt payment will be shown on the purchase order/contract and taken if invoices are processed and payment made within the stipulated time frame. If discounts are not offered, payment shall be made thirty (30) days after receipt of an accurate invoice by the County.

Our terms are: _____

J. BIDDER DATA

QUALIFICATIONS OF BIDDER: Firms shall have the capability in all respects to perform fully the contract requirements and the experience, integrity, perseverance, reliability, capacity, facilities, equipment, and credit which will assure good faith performance of the contract to the satisfaction of the County.

BIDDER: Indicate the length of time you have been in business as a company providing the type of good(s) and/or service(s) required for this contract.

_____ years _____ months

Provide a minimum of three (3) references that will substantiate past work performance and experience in providing fire apparatus to municipalities.

Municipality name, Address, Phone Number, Contact Person's Name and Email Address, Date Apparatus Placed in Service:

1. _____

2. _____

3. _____

ATTACHMENT A - Virginia State Corporation Commission (SCC) Registration Information

The bidder shall check one of the following. The bidder is:

☐ a corporation or other business entity with the following SCC identification number: _____ -
OR-

☐ not a corporation, limited liability company, limited partnership, registered limited liability partnership, or business trust **-OR-**

☐ an out-of-state business entity that does not regularly and continuously maintain as part of its ordinary and customary business any employees, agents, offices, facilities, or inventories in Virginia (not counting any employees or agents in Virginia who merely solicit orders that require acceptance outside Virginia before they become contracts, and not counting any incidental presence of the offeror in Virginia that is needed in order to assemble, maintain, and repair goods in accordance with the contracts by which such goods were sold and shipped into Virginia from offeror's out-of-state location) -
OR-

☐ an out-of-state business entity that is including with this proposal an opinion of legal counsel which accurately and completely discloses the undersigned offeror's current contacts with Virginia and describes why those contacts do not constitute the transaction of business in Virginia within the meaning of § 13.1-757 or other similar provisions in Titles 13.1 or 50 of the *Code of Virginia*.

****NOTE**** >> Check the following box if you have not completed any of the foregoing options but currently have pending before the SCC an application for authority to transact business in the Commonwealth of Virginia and wish to be considered for a waiver to allow you to submit the SCC identification number after the due date for proposals. No award shall be issued to an offeror who fails to provide the required information unless a waiver of these requests is granted by the chief executive of the local governing body (the County reserves the right to determine in its sole discretion whether to allow such waivers): ☐

ATTACHMENT B - Specifications

This attachment, pages 24 –82, must be completed and returned with the bid submission. If additional space is necessary, please attach a separate page and identify the appropriate specification number. All engineering designs and construction methods shall be the current industry standard, and shall comply with the most recently published edition of the National Fire Protection Association Standards for Automotive Fire Apparatus (NFPA 1901) and Breathing Air Quality (NFPA 1989) and any other applicable NFPA standard.

- 1.0 CHASSIS/WHEELBASE:** The chassis shall be a Freightliner conventional, Model M2 or equal, 106 set back front axle, straight truck provision chassis, current model year with LH primary steering location. The wheelbase of the vehicle shall be approximately 186" long.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 2.0 WARRANTY, CHASSIS:** A two (2) year, unlimited mileage warranty shall be provided. A copy of the warranty certificate is required prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 3.0 OVERALL LENGTH:** The maximum overall length of the apparatus shall not exceed 28 feet or 336 inches.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 4.0 OVERALL HEIGHT:** The maximum overall height of the apparatus shall not exceed 10 feet 3 inches, to include any accessories, handles or protruding attachments.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 5.0 GVW RATING:** The gross vehicle weight rating shall be approximately 35,000 lbs. A detailed chart showing the load calculations for each axle and overall weight distribution shall be provided prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

6.0 FRAME: The frame rails shall be constructed of heat treated alloy steel 120,000 p.s.i. yield.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

7.0 AXLE, FRONT: The front axle shall have a ground rating capacity of approximately 12,000 lbs., Meritor™ or equal.

7.1 The front axle shall have oil seals with viewing windows and fill plugs.

7.2 Synthetic gear oil shall be provided.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

8.0 WARRANTY, FRONT AXLE: A five (5) year warranty shall be provided for the front axle. A copy of the warranty certificate is required prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

9.0 SUSPENSION, FRONT: A spring mounted, parabolic, taper leaf front suspension shall be provided with a minimum ground rating of 12,000 lbs.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

10.0 SHOCK ABSORBERS: Double acting shock absorbers shall be provided on the front axle and front suspension.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

11.0 TIRES, FRONT: Front tires shall be 11R 22.50 Michelin XZE 2 LRH radials

11.1 The tires shall be mounted on 22.50" x 8.25" Alcoa Dura Bright or equal aluminum disc-type wheels with a ten (10) stud.

11.2 All tires shall be balanced with counteract balancing beads.

11.3 The beads shall be inserted into the tire and eliminate the need for wheel weights.

11.4 No spare tire shall be provided.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

12.0 AXLE, REAR: The rear axle shall be a Meritor™ or equal single rear axle with a capacity of approximately 23,000 lbs. Synthetic gear lube shall be provided.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

13.0 REAR AXLE RATIO: The rear axle ratio shall allow the vehicle to reach a top speed of 65 MPH.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

14.0 REAR SUSPENSION: The rear suspension shall be a spring mounted suspension with a ground rating of approximately 23,000 lbs.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

15.0 TIRES, REAR: Rear tires shall be Michelin 11R 22.50 XDN 2 LRH radials.

15.1 The tires shall be mounted on Alcoa 22.50" x 8.25" Dura-Bright® or equal aluminum disc wheels with a ten (10) stud.

15.2 All tires shall be balanced with counteract balancing beads.

15.3 The beads shall be inserted into the tire and eliminate the need for wheel weights.

15.4 No spare tire shall be provided.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

16.0 TIRE PRESSURE MANAGEMENT: A tire pressure management alert system shall be provided to monitor each tire's pressure.

16.1 A chrome plated brass sensor shall be provided on the valve stem of each tire, total of six (6).

16.2 The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 20 and 120 psi.

16.3 The sensor shall activate an integral battery operated LED when the pressure of a particular tire drops eight (8) psi.

16.4 Removing the cap from the sensor shall indicate the functionality of the sensor and battery.

16.5 If the sensor and battery are in working condition, the LED shall immediately start blinking.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
--

17.0 HUB/LUG NUT COVERS:

17.1 Stainless steel hub covers shall be provided on the front axle, and shall include an oil level viewing window.

17.2 A pair of stainless steel high hat hub covers shall be provided on each of the rear axle hubs.

17.3 Chrome lug nut covers shall be provided on all lug nuts.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
--

18.0 AUTOMATIC TIRE CHAINS:

18.1 One (1) pair of Rud Rotogrip or equal, 6-strand automatic tire chains shall be provided at the rear axle.

18.2 The system type shall be an electric-over-air.

18.3 A switch to engage/disengage the chains shall be provided on the cab instrument panel.

18.4 The automatic chain system shall be operable at speeds up to 35 mph.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
--

19.0 MUD FLAPS: Mud flaps shall be installed behind the rear wheels of the apparatus.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

20.0 ELECTRONIC STABILITY CONTROL:

- 20.1 A Wabco or equal vehicle control system shall be provided as an integral part of the ABS brake system.
- 20.2 The system shall monitor and update the lateral acceleration of the vehicle and compare it to a critical threshold where a side roll event may occur.
- 20.3 If the critical threshold is met, the vehicle control system shall automatically reduce engine RPM and selectively apply brakes to the individual wheel ends of the front and rear axles.
- 20.4 The system shall monitor directional stability through a lateral accelerometer, steer angle sensor and yaw rate sensor.
- 20.5 If spinout or drift out is detected, the vehicle control system shall selectively apply brakes to the individual wheel ends of the front and rear axles to bring the vehicle back to its intended direction.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

21.0 CERTIFICATION, VEHICLE STABILITY: Certification stating that the chassis has Vehicle Stability shall be provided at the time of delivery.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

22.0 ANTI-LOCK BRAKE SYSTEM:

- 22.1 The vehicle shall be equipped with a Wabco or equal anti-lock braking system (ABS) with Traction Control.
- 22.2 The ABS shall provide a four (4) channel anti-lock braking control on both the front and rear wheels.
- 22.3 A digitally controlled system that utilizes microprocessor technology shall control the anti-lock braking system.
- 22.4 Each wheel shall be monitored by the system.
- 22.5 This anti-lock brake system shall eliminate the lockup of any wheel, when any wheel begins to

lookup, a signal shall be sent to the control unit.

- 22.6 This control unit shall then reduce the braking of that wheel for a fraction of a second and then reapply the brake.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

23.0 AUTOMATIC TRACTION CONTROL: This feature shall be included as integral to the ABS system.

23.1 A driver controlled switch shall be provided to activate the system.

23.2 An anti-slip feature shall be included with the ABS.

23.3 The Automatic Traction Control shall act as an electronic differential lock.

23.4 The ABS electronic control unit (ECU) shall work with the engine ECU, sharing information concerning wheel slip.

23.5 Engine ECU shall use information to control engine speed, allowing only as much throttle application as required for the available traction, regardless of driver action.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

24.0 WARRANTY, ELECTRONIC STABILITY CONTROL, ANTI-LOCK BRAKE SYSTEM & AUTOMATIC TRACTION CONTROL: A three (3) year or 300,000 mile parts and labor warranty shall be provided by the system manufacturer. A copy of the warranty certificate is required prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

25.0 BRAKES:

25.1 The front brakes shall be S-Cam type, approximately 15.0" x 4.00", and shall be provided with automatic slack adjusters.

25.2 The rear brakes shall be S-Cam type, approximately 16.50" x 7.00", and shall be provided with automatic slack adjusters.

25.3 Brake linings shall be non-asbestos, rated for Fire and Emergency severe service.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

26.0 BRAKE SYSTEM: The brake system shall include the following components:

- 26.1 Bendix or equal dual brake treadle valve with vinyl covered foot surface.
- 26.2 Heated automatic moisture ejector on air dryer.
- 26.3 Total minimum air system capacity of sufficient size for the selected fire/rescue application.
- 26.4 Two additional air tanks shall be provided above the chassis manufacturer's standard for additional capacity and air horn use.
- 26.5 All air tanks shall be mounted with stainless steel straps/brackets.
- 26.6 Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi.
- 26.7 Spring set parking brake system.
- 26.8 Parking brake operated by a push-pull style control valve located next to the instrument cluster.
- 26.9 A parking "brake on" indicator light on instrument panel.
- 26.10 Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, shall be provided with an automatic spring brake application at 40 psi.
- 26.11 An air dryer with spin-on coalescing filter cartridge and 100 watt heater shall be provided and shall be properly sized for the brake system.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

27.0 BRAKE LINES: Reinforced nylon brake lines shall be provided. The lines shall be wrapped in a heat protective loom where necessary in the chassis.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

28.0 AIR COMPRESSOR, BRAKE SYSTEM: The air compressor output shall be approximately 18.7 cubic feet per minute.

- 28.1 A Kussmaul 091-9-B-1, or equal, 120 Volt auxiliary air compressor shall be supplied in addition to the chassis supplied air compressor.
 - 28.1.1 This compressor shall be tied into the chassis air system.
 - 28.1.2 Power for this air compressor shall be obtained from the shoreline.

28.1.3 This compressor shall be located in the driver's side body compartment.
A protective shield shall be provided.

28.1.4 Exact location to be determined at the pre-construction conference.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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29.0 MOISTURE EJECTORS: One (1) automatic moisture ejector with a 12-volt heater, controlled by thermostat and ignition switch shall be installed in the brake system on the wet tank reservoir.

29.1 Manual moisture ejectors shall be installed in the brake system on all auxiliary tank reservoirs.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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30.0 ENGINE: The engine shall be a Cummins ISL-350 or equal 8.9 Liter with the following components:

30.1 Power: 350 h.p. at 2000 rpm

30.2 Torque: 1000 lb-ft at 1400 rpm

30.3 Governed Speed: 2200 rpm

30.4 Emissions Level: Current applicable Environmental Protection Agency (EPA) standards. Diesel engines shall comply with all (EPA) Carb Emissions Certifications. This compliance shall be achieved without the use of credits or payments of fines to allow for the sale of diesel engines.

30.5 Fuel: Diesel

30.6 Cylinders: Six (6), in-line

30.7 Displacement: 8.9 Liters

30.8 Fuel Filters: Spin-on style primary filter with water separator & water-in-fuel sensor. Secondary spin-on style filter is required as well. Check valves shall be supplied.

30.9 Coolant Filter: Spin-on style with shut off valves on the supply and return line.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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31.0 WARRANTY, ENGINE: A five (5) year or 100,000 mile warranty shall be provided on the engine. A copy of the warranty certificate is required prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

32.0 HIGH IDLE:

32.1 A high idle switch to automatically maintain a pre-set engine rpm shall be provided inside the cab on the instrument panel.

32.2 A switch shall be installed at the cab instrument panel for activation/deactivation.

32.3 The high idle shall be operational only when the parking brake is on and the truck transmission is in neutral.

32.4 A green indicator light shall be provided adjacent to the switch and shall illuminate when the above conditions are met.

32.5 The light shall be labeled "OK to Engage High Idle".

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

33.0 ENGINE BLOCK HEATER: The chassis shall include a 110V AC powered engine block heater. The block heater shall be wired to the apparatus shoreline system and shall include an OEM disconnect located in the engine compartment.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

34.0 ENGINE BRAKE: An engine exhaust brake integral to the motor shall be provided and include brake light activation when in operation. The controls shall include on/off and high/low settings, and shall be located in the instrument panel within reach of the driver.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

35.0 AIR INTAKE: An air inlet shall be provided. It shall be equipped with a stainless steel mesh to separate water and burning embers, and shall not allow particulate matter larger than 1 mm in diameter to reach the air filter element.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

36.0 EXHAUST SYSTEM: Exhaust system shall be right side mounted for the after treatment system.

- 36.1 The exhaust system shall include a diesel particulate filter (DPF) and a selective catalytic reduction (SCR) device to meet current EPA standards.
- 36.2 The DPF and SCR shall be mounted horizontally outside of the frame rails in the passenger side front step area.
- 36.3 The exhaust shall terminate with a single vertical exhaust pipe and diffuser behind the cab on the passenger side of the vehicle.
- 36.4 A perforated stainless steel heat shield with assist handle shall be mounted on the vertical exhaust.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

37.0 RADIATOR: A radiator shall be provided to meet cooling requirements for the selected chassis application.

- 37.1 Radiator shall include an On/Off automatic fan with Borg Warner, or equal, fan clutch cooling.
- 37.2 The radiator shall also include a drain valve.
- 37.3 A de-aeration tank with sight glass shall be provided as well.
- 37.4 Antifreeze protection shall be provided to -30 degrees Fahrenheit.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

38.0 COOLANT LINES: Gates Blu-stripe or equal hoses shall be used for all engine/heater coolant lines. Hose clamps shall be stainless steel constant torque type.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

39.0 FUEL TANK: A fuel tank shall be provided and located to the rear of the chassis, aft of the axle with an approximate capacity of 50 gallons.

- 39.1 The tank shall be constructed of aluminum if available, and mounted with stainless steel straps with rubber isolators.
- 39.2 The tank shall be equipped with slosh partitions and a vent.

- 39.3 A .75" drain plug shall be provided in a low point of the tank for drainage.
- 39.4 A fill inlet shall be located on the driver side of the body; rearward of the rear wheel and shall be marked as "Diesel Fuel Only."
- 39.5 A .50" diameter vent shall be provided running from top of tank to just below fuel fill inlet.
- 39.6 The tank shall meet all FHWA 393.67 requirements, including a fill capacity of 95 percent of tank volume.
- 39.7 All fuel lines shall be provided as recommended by the engine manufacturer.
- 39.8 Service of the fuel gauge sending unit shall be accomplished without draining fuel or dropping the tank.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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- 40.0 DIESEL EXHAUST FLUID TANK:** A diesel exhaust fluid (DEF) tank shall be provided and mounted in the driver's side body below the cab, with an approximate capacity of 6 gallons. The tank shall include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing. The DEF tank shall include an aluminum diamond plate cover with filling access opening.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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- 41.0 FUEL SHUTOFF:** A fuel line shutoff valve shall be installed on both the inlet and outlet of the primary fuel filter.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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- 42.0 TRANSMISSION:** An electronic torque converting automatic transmission shall be provided, Allison 3000 EVS Automatic Gen V or equal.

- 42.1 The transmission shall be equipped with prognostics to monitor oil life, filter life, and transmission health.
- 42.2 A wrench icon on the shift selector's digital display shall indicate when service is due.
- 42.3 A transmission temperature gauge with red light and audible alarm shall be installed on the cab instrument panel.
- 42.4 An aggressive downshift program shall be included if available.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 43.0 WARRANTY, TRANSMISSION:** A five (5) year/unlimited mileage warranty shall be provided for the transmission. A copy of the warranty certificate is required prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 44.0 TRANSMISSION SHIFT CONTROL:** A five (5)-speed push button shift module shall be mounted to the right of the driver on the dashboard.

44.1 Shift position indicator shall be indirectly lit for after dark operation.

44.2 The transmission ratio shall be adequate for the apparatus application.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 45.0 TRANSMISSION PROGRAMMING:** The transmission shall be programmed to automatically shift the transmission to neutral when the parking brake is set.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 46.0 TRANSMISSION FLUID:** The transmission fluid shall be heavy duty synthetic transmission fluid as approved by the manufacturer of the proposed transmission.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 47.0 TRANSMISSION COOLER:** An external transmission oil cooler shall be provided.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 48.0 DRIVELINE:** Drivelines shall be a heavy-duty metal tube and shall be equipped with universal joints with zerk fittings, properly sized for the application. A splined slip joint shall be provided in each driveshaft.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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49.0 STEERING: The steering system shall be a hydraulically driven system. The steering column shall include adjustable tilt and telescoping capabilities.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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50.0 BUMPER: A three (3) piece, full width chrome plated steel bumper with collapsible boxed ends shall be attached to the front of the chassis frame and shall be approximately 14" high.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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51.0 TOW HOOKS: Two (2) painted, forged steel tow hooks shall be installed under the bumper and attached to the front frame members.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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52.0 CAB: The cab shall have 2-doors with a flat roof, and shall be constructed of aluminum.

52.1 The cab exterior shall include the following:

52.1.1 Aerodynamic hood and windshield.

52.1.2 Tinted glass in all windows.

52.1.3 Fiberglass tilt hood.

52.1.4 Delete the factory rear window.

52.1.5 Plastic "chromed" grille with matching headlight bezels, high impact. Grille shall tilt with hood.

52.1.6 Engine air intake housing, chrome finish.

52.2 The cab interior shall include the following:

52.2.1 Rubber cab mounts.

52.2.2 Black vinyl mats.

52.2.3 Forward roof mounted console.

52.2.4 Two (2) dash mounted cup holders, right hand and left hand.

52.2.5 Flat style dash.

52.2.6 Gray vinyl upholstery.

52.2.7 Dual sun visors.

52.2.8 Fresh air heater and defroster.

52.2.9 Door kick plates, brushed aluminum.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

53.0 CERTIFICATION, CAB INTEGRITY: A cab crash test certification is required to indicate that the cab meets or exceeds the following requirements:

53.1 European Occupant Protection Standard, ECE Regulation No.29.

53.2 SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.

53.3 This certification shall be provided prior to contract award, within three (3) days of the request.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

54.0 MIRRORS: Exterior, one on the driver side door and one on the passenger side door.

54.1 West Coast style, heated, remote operated, constructed of molded composite material with a bright chrome finish.

54.2 A convex mirror shall be included on each, approximately 8".

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

55.0 HANDRAILS ON CAB: Two (2) handrails shall be provided, one (1) at each cab door opening.

55.1 Handrail shall be installed in a vertical orientation, rearward of the cab doors. The passenger side handrail can be the one installed on the vertical exhaust.

55.2 Vertical orientation handrails shall have a drain hole in the bottom stanchion.

55.3 A rubber gasket shall be installed in each end stanchion of the handrail.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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56.0 DAYTIME RUNNING LIGHTS: Required.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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57.0 AIR CONDITIONING: An air conditioning system that is integral with the heater/defroster system shall be provided and include a recirculation switch and shall be adequate to control the internal cab environment.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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58.0 LIGHTS, ENGINE COMPARTMENT: Two (2) LED engine compartment lights with integral switches shall be installed under the engine hood.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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59.0 SEATING CAPACITY: Two (2).

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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60.0 SEATS/SEAT BELTS: An air-ride seat shall be provided for the driver and passenger.

60.1 Seat belts for each seat shall be provided, with a minimum of 120" for the shoulder belt and minimum of 55" for the lap belt.

60.2 Seat belts shall be high visibility orange.

60.3 Seats shall be made of Cordura Plus or equal type of material. Grey color desired.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

61.0 SEAT BELT MONITORING SYSTEM: A seat belt monitoring system (SBMS) shall be provided. The SBMS shall be capable of monitoring two (2) seating positions indicating the status of each seat position with a green or red LED indicator as follows:

61.1 Driver Seat:

61.1.1 Seat Occupied Buckled Green.

61.1.2 Seat Occupied Unbuckled Red.

61.1.3 No Occupant Unbuckled Not Illuminated.

61.1.4 The display indication for the driver seat shall illuminate red any time the parking brake is released and the driver seat belt is not buckled.

61.2 Passenger Seat:

61.2.1 Seat Occupied Buckled Green.

61.2.2 Seat Occupied Unbuckled Red.

61.2.3 No Occupant Buckled Red.

61.2.4 No Occupant Unbuckled Not Illuminated.

61.3 Alarm: The SBMS shall include an audible alarm that shall be activated when a red illumination condition exists and the parking brake is released, or a red illumination condition exists and the transmission is not in park.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

62.0 VEHICLE DATA RECORDER: A vehicle data recorder (VDR) shall be provided to include the following:

62.1 The VDR shall be capable of reading and storing vehicle information at least once per second.

62.2 The VDR shall be capable of operating in a voltage range from 8VDC to 16VDC.

62.3 The VDR shall not interfere with, suspend, or delay any communications that may exist on the Controller Area Network (CAN) data link during the power up, initialization, runtime, or power down sequence.

62.4 The VDR shall continue operation upon termination of power or at voltages below 8V DC for a minimum of 10ms.

- 62.5 The information shall on the VDR and can be downloaded through a USB port mounted in a convenient location determined by cab model.
- 62.6 A CD or similar storage shall be provided with the apparatus capable of downloading the information from the VDR.
- 62.7 The VDR and its operation shall comply with all NFPA 1901 standards at the time of construction.
- 62.8 The vehicle data recorder shall be capable of recording the following data via hardwired and/or CAN inputs:
- 62.8.1 Maximum Vehicle Speed – MPH.
 - 62.8.2 Maximum Acceleration - MPH/sec.
 - 62.8.3 Maximum Deceleration - MPH/sec.
 - 62.8.4 Maximum Engine Speed – RPM.
 - 62.8.5 Maximum Engine Throttle Position - % of Full Throttle.
 - 62.8.6 ABS Event - On/Off.
 - 62.8.7 Seat Occupied Status - Yes/No by Position at 30 second into minute (2 Person Seating Capacity).
 - 62.8.8 Seat Belt Buckled Status - Yes/No by Position at 30 second into minute (2 Person Seating Capacity)
 - 62.8.9 Master Optical Warning Device Switch - On/Off at 30 second into minute.
 - 62.8.10 Time - 24 Hour Time.
 - 62.8.11 Date - Year/Month/Day.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

63.0 CAB INSTRUMENTS: The following cab instrumentation shall be provided:

- 63.1 Engine Temperature Gauge and Warning Buzzer.
- 63.2 Engine Oil Pressure Gauge and Warning Buzzer.
- 63.3 Speedometer with Odometer.
- 63.4 Engine Tachometer and Hour meter.

63.5 Fuel Level Gauge.

63.6 Diesel Exhaust Fluid (DEF) Gauge.

63.7 Voltmeter with low voltage red warning light and audible alarm.

63.8 Air Brake Pressure Gauges, total of two (2).

63.9 Air Restriction Indicator.

63.10 Circuit Breakers for overload protection of electric circuits.

63.11 Keyless Ignition Switch (Part number shall be provided upon request)

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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64.0 INDICATOR LIGHTS: An "Open Door" red indicator light shall be provided inside the cab, and shall activate when any door on the cab or body is opened. It shall be installed within clear view of the driver.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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65.0 WIPER/WASH CONTROL: The windshield wiper control shall include washer controls and intermittent wiper speeds.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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66.0 CAB CEILING LIGHTING: Two (2) Sound Off, or equal, LED overhead dome lights shall be furnished and installed in the cab of the unit. They shall have an individual switch for red/white colors.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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67.0 SPARE CIRCUITS: The following spare circuits shall be provided:

67.1 Two (2) pair of wires shall be installed on the apparatus, to include a positive and a negative. Wires shall be sized to 125% of the protection. This circuit may be load managed with the parking brake is set. The wires shall include the following features:

67.1.1 The positive wire shall be connected directly to the battery power.

- 67.1.2 The negative wire shall be connected to ground.
- 67.1.3 Wires shall be protected to 15 amps at 12 volts DC.
- 67.1.4 Power and ground shall terminate near passenger.
- 67.1.5 Termination shall be with two (2), 15 amp power point plugs with rubber covers in the cab center of the dashboard.
- 67.1.6 Termination shall be with one (1) power point and be located on the dash to the left of the steering column.
- 67.2 One (1) pair of wires shall be installed on the apparatus, to include a positive and a negative. Wires shall be sized to 125% of the protection, and shall be properly labeled with their functionality. This circuit may be load managed with the parking brake is set. The wires shall include the following features:
 - 67.2.1 The positive wire shall be connected directly to the battery power.
 - 67.2.2 The negative wire shall be connected to ground.
 - 67.2.3 Wires shall be protected to 20 amps at 12 volts DC.
 - 67.2.4 Power and ground shall terminate to a rocker switch in the panel (labeled "MDC"), and a stud shall be located in the radio compartment to open and close the relay that kills power to the MDC and GPS.
 - 67.2.5 This circuit shall be controlled by a switch located in the driver's side switch panel.
- 67.3 One (1) pair of wires shall be installed on the apparatus, to include a positive and a negative. Wires shall be sized to 125% of the protection, and shall be properly labeled with their functionality. This circuit may be load managed with the parking brake is set. The wires shall include the following features:
 - 67.3.1 The positive wire shall be connected directly to the battery power.
 - 67.3.2 The negative wire shall be connected to ground.
 - 67.3.3 Wires shall be protected to 60 amps at 12 volts DC.
 - 67.3.4 Power and ground shall terminate in the radio compartment with 3/8" studs and plastic covers.
 - 67.3.5 Exact mounting location to be determined at pre-construction conference.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 68.0 RADIO INSTALLATION:** Two (2), two-way radios shall be provided by the County and installed by the contractor (installation location to be determined at the pre-construction conference). No antenna whips are required.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 69.0 MOBILE DATA TERMINAL (MDT) INSTALLATION:** One (1) MDT communication cable kit and modem power cable, and one (1) MDT power distribution board shall be provided by the County and installed by the contractor (installation location to be determined at the pre-construction conference).

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 70.0 GPS ANTENNA INSTALLATION:** One (1) GPS antenna shall be provided by the County and installed by the contractor at the highest point possible on the passenger side roof. The antenna cable shall be run from the antenna to the MDT dock.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 71.0 RADIO ANTENNA MOUNT:** Five (5) standard antenna mount bases with coaxial cables and waterproof caps shall be provided for the two-way radio installation and installed on the module roof.

71.1 Each coaxial cable shall include a minimum 3' service loop and shall be labeled on each end to designate function.

71.2 Exact mounting locations and cable termination will be determined at the post-paint inspection.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 72.0 CONNECTION POINTS, RADIO EQUIPMENT:** Three (3) studs for the two-way radio equipment shall be provided in the primary power distribution center.

72.1 The studs shall be as follows:

72.1.1 12-volt, 40 amp battery switched power.

72.1.2 12-volt, 60 amp ignition switched power.

72.1.3 12-volt, 60 amp direct battery power.

72.2 One (1) 12-volt, 100 amp ground stud shall be provided in or adjacent to the power distribution center.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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73.0 INTERCOM SYSTEM: There shall be digital, dual radio interface, Firecom Model # 5200 D intercom located in the cab.

73.1 Two (2) headsets shall be "under the helmet", FireCom headsets. Firecom Model # UH-51 radio transmit/receive/intercom communication.

73.2 The mounting location of the intercom TBD by the County at post paint inspection.

73.3 Headset jacks in the cab interior shall be two (2) FireCom HM-10 Interior headset jacks.

73.4 The outside left rear jack shall be one (1) FireCom PP-20 exterior headset jack.

73.5 The exact mounting location of the intercom jacks TBD by the County at post paint inspection.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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74.0 RADIO INTERFACE CABLES: Two (2) radio interface cables shall be furnished and installed before delivery of the vehicle.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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75.0 HEADSET HANGERS: Two (2) headset hanger(s) shall be furnished and installed, one in each seating position.

75.1 The hanger(s) shall meet NFPA 1901, Section 14.1.11, and requirements for equipment mounting.

75.2 The mounting location of the hangers TBD by purchaser at post paint inspection.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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76.0 STORAGE CONSOLE: There shall be a console located between the front seats with room for map storage, the siren head and two (2) radios.

- 76.1 Four (4) sections for map storage shall be furnished, and installed to the rear of the console.
- 76.2 Each map storage section shall be approximately 4.00" wide x 13.00" long x 12.25" deep.
- 76.3 The console shall be constructed of smooth aluminum and painted black.
- 76.4 Exact size, layout and location shall be determined at the pre-construction conference.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

77.0 PORTABLE HAND LIGHT: One (1) rechargeable hand light with mounting base shall be provided and installed.

- 77.1 Streamlight E-Flood FireBox, or equal, installed inside of the cab or body. Exact mounting location to be determined at pre-construction conference.
- 77.2 Color: Orange.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

78.0 ELECTRICAL: All 12-volt electrical components installed by the Contractor shall comply with the following requirements:

- 78.1 All wiring types shall be high temperature cross-link.
- 78.2 All exposed wiring shall be run in loom or conduit, and shall include grommets for any wire passing through sheet metal.
- 78.3 Automatic re-set circuit breakers shall be provided, and shall conform to SAE standards.
- 78.4 Wiring shall be color, function and number coded. Function and number codes shall be imprinted continuously at 2" intervals on all wiring harness conductors.
- 78.5 Exterior exposed wire connectors shall be positive locking, and shall be environmentally sealed to withstand temperature extremes, moisture, automotive fluids, etc.
- 78.6 All electrical wiring and components shall be installed using the following guidelines:
 - 78.6.1 All holes made in the roof shall be caulked with silicone. Rope caulk is not acceptable.
 - 78.6.2 When fastening equipment to the underside of the cab roof, liberally caulked large fender washer shall be used.
 - 78.6.3 Any electrical component installed in an exposed area shall be mounted in a

manner to avoid moisture accumulation. Exposed area shall be defined as any location outside of the cab or body.

- 78.6.4 Any electrical components designed to be removed for maintenance shall be fastened with metal screws, not nuts and bolts. A 3.00' coil of wire shall be provided behind components to allow for separation from mounting area for inspection and servicing.
- 78.6.5 A corrosion preventive compound shall be applied as follows:
 - 78.6.5.1 All exposed terminal plugs.
 - 78.6.5.2 All non-waterproof connections.
 - 78.6.5.3 All exposed light sockets.
 - 78.6.5.4 Silicone, DOW 1890, or equal, shall be applied to the metal portion of all exposed electrical terminals.
- 78.7 All emergency lighting controls shall be mounted in the cab.
- 78.8 All lights and reflectors shall be provided and shall comply with the most recent Federal Motor Vehicle Safety Standard.
- 78.9 Rear identification lights shall be recess mounted.
- 78.10 A false bulkhead shall be installed inside the rear compartments for mounting of lights and wiring in the rear bulkhead.
- 78.11 An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and operational. Results of this testing shall be provided to the County at apparatus delivery.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

79.0 BATTERY SYSTEM: A single starting battery system shall be provided.

- 79.1 It shall consist of three (3) 12-volt, maintenance free, group 31 batteries, with approximately 950 CCA each (2850 CCA total).
- 79.2 The batteries shall be mounted on a slide-out tray located in an access panel enclosure under the driver's side of the cab.
- 79.3 Depending on the chassis configuration and the required step design, the battery covering or steps shall either be removable to allow the battery tray to slide out, or shall roll out with the batteries in a drawer type movement. The fuel tank is typically installed in this location; it shall be removed and replaced as specified elsewhere in these specifications.
- 79.3 Positive and negative posts for jump starting shall be provided and frame mounted under the hood.

79.4 A master battery switch shall be provided to activate the battery system. It shall be installed inside the cab with easy access by the driver.

79.4.1 Exact mounting location to be determined at pre-construction conference.

79.5 A master battery disconnect switch shall be wired between the starter solenoid and the remainder of the electrical loads on the apparatus.

79.6 A green "battery on" indicator light shall be provided, visible from the driver's position.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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80.0 BATTERY CABLE INSTALLATION: All 12-volt battery cables and battery cable harnessing installed by the apparatus manufacturer shall conform to the following requirements:

80.1 SAE J1127 - Battery Cable.

80.2 SAE J561 - Electrical terminals, eyelets and spade type.

80.3 SAE J562 - Nonmetallic loom.

80.4 SAE J836A - Automotive metallurgical joining.

80.5 SAE J1292 - Automotive truck, truck-tractor, trailer and motor coach wiring.

80.6 NFPA 1901 - Standard for automotive fire apparatus.

80.7 Battery cables and battery cable harnessing shall be installed utilizing the following guidelines:

80.7.1 All battery cables and battery harnesses shall have a permanent label attached for easy identification of the harness part number and fabrication date.

80.7.2 Splices shall not be allowed on battery cables or battery cable harnesses.

80.7.3 All battery cables shall be color coded.

80.7.4 All positive battery cables shall be red in color or wrapped in red loom the entire length of the cable.

80.7.5 All negative battery cables shall be black in color.

80.7.6 For ease of identification, all positive battery cable isolated studs throughout the cab and chassis shall be red in color.

80.7.7 All electrical buss bars located on the exterior of the apparatus shall be coated to prevent corrosion.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

81.0 BATTERY AND STEP COVERS: Aluminum Tread Plate construction.

- 81.1 Formed and welded aluminum tread plate cab access steps shall be provided on both sides of the vehicle.
- 81.2 The covers shall be made of polished aluminum tread plate.
- 81.3 Battery access to OEM battery position shall be provided on the driver's side with built in steps.
- 81.4 Battery access shall be through a removable cover or on a slide tray under the driver's door.
- 81.5 The SCR canister shall be fitted with a formed aluminum tread plate cover with built in steps on the passenger side.
- 81.6 Assemblies shall be securely bolted to the chassis framing and easily removable for servicing.
- 81.7 Whelen LED lighting shall be included in the step area. LED strip lights shall be provided on each side with a protective shield provided to protect the light.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

82.0 BATTERY CHARGER: A 75-amp battery charger shall be provided, IOTA DSL- 75 or equal.

- 82.1 It shall be installed in the forward upper section of the front driver's side body compartment. Exact mounting location shall be determined at pre-construction conference.
- 82.2 The battery charger shall be wired to the AC shoreline inlet through an AC receptacle adjacent to the charger.
- 82.3 A remote indicator shall be provided and located near the driver's seat riser.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

83.0 SHORELINE: A shoreline receptacle shall be provided, capable of operating 120-volt circuits on the truck.

- 83.1 It shall include a NEMA 5-20, 120-volt, 20 amp, straight blade plug and gray cast cover.
- 83.2 The receptacle shall be recessed into the driver's side as close as possible to the front compartment. Exact mounting location shall be determined at pre-construction conference.

83.3 The shoreline shall be connected to the battery charger and shoreline receptacles.

83.4 A mating male connector body shall be provided with loose equipment.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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84.0 ALTERNATOR: An alternator with a rated output current of approximately 320 amps as measured by SAE method J56 shall be provided.

84.1 Leece-Neville, or equal.

84.2 Shall include a custom three-set point voltage regulator.

84.3 Shall be connected to the power and ground distribution system with heavy duty cables, sized to carry the full rated alternator output.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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85.0 AMP DRAW REPORT: An itemized report of the expected amp draw of the vehicle's entire electrical system shall be provided at vehicle delivery. It shall include documentation of the electrical system performance tests, and a written load analysis, which shall include the following:

85.1 The nameplate rating of the alternator.

85.2 The alternator rating under the conditions specified per applicable regulations.

85.3 The minimum continuous load of each component specified per applicable regulations.

85.4 Additional loads that determine the total connected load when added to the minimum continuous load.

85.5 Each individual intermittent load.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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86.0 ELECTRONIC LOAD MANAGEMENT: An electronic load management (ELM) system shall be provided, Kussmaul Load Manager 2 or equal.

86.1 Shall monitor the vehicle's 12-volt electrical system and automatically reduce the electrical load in the event of a low voltage condition.

86.2 Shall monitor the vehicle's voltage while running with the parking brake applied.

86.3 Shall sequentially shut down individual circuit loads when the system voltage drops below a pre-set value.

86.4 Two (2) separate electrical loads shall be controlled by the ELM.

86.5 Shall sequentially re-energize electrical loads as the system voltage recovers.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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87.0 IDLE OUTPUT: A fast idle output shall be activated whenever the system voltage is reduced to 12.8 Volts Direct Current (VDC).

87.1 Shall remain "ON" for a minimum of 10 minutes, and until 13.0 VDC is achieved.

87.2 The fast idle output shall be dependent on the parking brake.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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88.0 BODY TYPE: A Rescue Style body with the following approximate exterior body dimensions shall be provided:

88.1 Length = 200"

88.2 Width = 96"

88.3 Exterior Height = 92"

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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89.0 BODY MATERIALS: The entire body structure shall be manufactured of aluminum and welded, not bolted. Welders that are certified to the standards of AWS shall perform all welding on the modules and body assembly.

89.1 Body Assembly (**Minimum requirements for material**)

89.1.1 Sheet: .12 5052 Aluminum.

89.1.2 Tubing (Framing): .12 wall thickness 6061 Aluminum .

89.1.3 Tread plate: .12 3003 Aluminum.

89.2 The body sheet shall use .12" and .18" 5052 aluminum alloy with a tensile strength of 38,000 psi and yield strength of 31,000 psi.

89.3 The structural support framing (tubing) used shall be 1.00" x 2.00", .12" wall thickness aluminum

alloy tubing and 2.00" square, .12" wall thickness 6061 aluminum alloy tubing.

- 89.4 Proper reinforcing and supports shall be utilized throughout construction.
- 89.5 Fabricated gusset supports shall be added for structural integrity as needed and shall be welded into place.
- 89.6 All exterior surfaces designated as stepping, standing, and walking areas shall comply with the required average slip resistance of the current NFPA standards.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

90.0 BODY EXTERIOR UNDERSIDE: The substructure for the body shall not be integral with the body. A steel angle grid shall support the bottom of each compartment floor.

- 90.1 The body shall be supported by a steel substructure constructed of steel angle and designed to support the intended loads. The substructure shall be washed, primed and painted black to match the chassis.
- 90.2 These components shall be bolted directly to the chassis frame using appropriate fasteners.
- 90.3 The compartment floors shall be bolted to the substructure.
- 90.4 A rubber isolation pad shall be fastened to the substructure in all areas that contact the body. Minimum of six (6) locations shall attach the substructure to the frame rails.
- 90.5 The entire underbody shall be washed, primed and painted job color.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

91.0 EXTERIOR BODY CONSTRUCTION: The compartments shall be built in a manner that shall ensure correct tolerances. All compartments shall be supported appropriately on all sides. All compartments shall be designed to provide maximum storage space. The compartment floors shall be sweep out design.

- 91.1 All loading bearing structures shall be welded. All secondary non load bearing structures shall be fastened to the primary structure with elastic adhesive or welded. Documented installation procedures, approved by the adhesive manufacturer, shall be followed to ensure good bond.
 - 91.1.1 Body design shall allow for access to and removal of the breathing air compressor and storage vessels without disassembly of the body or structural components.

- 91.1.2 Rear wall assembly shall be smooth aluminum to allow for installation of reflective striping.
- 91.2 All body compartments shall have a minimum of one (1) set of automotive style, dust resistant louvers pressed into the wall.
- 91.2.1 The louvers shall incorporate a one (1)-way rubber valve that provides airflow out of the compartment and prevents water and dirt from gaining access to the compartment.
- 91.2.2 Each louver shall be sized appropriately based on the compartment.
- 91.3 Body structural analysis shall be fully tested with special attention given to fatigue and structural integrity of the body and substructure.
- 91.3.1 The body shall be tested while loaded to its greatest in-service weight.
- 91.3.2 Actual testing techniques shall be provided prior to contract award.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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92.0 BODY COMPARTMENTS: The following four compartments shall be provided on each side of the body. All measurements are approximate.

- 92.1 A 36.00" wide compartment, located behind the cab on each side, shall be capable of holding 800 pounds on each side of the truck. The dimensions shall be 36.00" wide x 85.75" high x 26.00" deep at floor level. The area over the frame rails shall be 36.00" wide x 63.75" high and extend through to the passenger side of the body. Clear door opening shall be approximately 33.50" wide by 69.00" high.
- 92.2 Located ahead of the rear wheels a 36.00" wide compartment, located on each side, shall be capable of holding 800 pounds on each side of the truck. The dimensions shall be 36.00" wide x 85.75" high x 26.00" deep at floor level. The area over the frame rails shall be 36.00" wide x 63.75" high and extend through to the passenger side of the body. Clear door opening shall be approximately 33.50" wide by 69.00" high.
- 92.3 A 74.00" (1,880mm) compartment located over the rear wheels shall be capable of holding 1,500 pounds (680kg) on each side of the truck. The dimensions will be 74.00" x 53.00" high. The depth shall extend through the body to the passenger side.
- 92.4 A compartment shall be provided behind the rear axle. This compartment dimensions shall be 42.00" wide x 85.75" high. The depth of this compartment shall be 26.00" at the frame rail height and extend across to the passenger side. Access to this compartment shall also be available from the rear of the body. Clear side door opening shall be 33.50" by 69.00" inches.
- 92.5 Each body compartment shall include two (2) white, 12 volt DC LED compartment light strips.

92.5.1 Two (2) strip lights shall be furnished and installed vertically in each compartment opening per the latest NFPA requirements.

92.5.2 Maximum height light fixtures shall be installed based on interior dimensions and clearances.

92.5.3 Any transverse compartment space shall also include two (2) additional LED light fixtures overhead in the middle of the space.

92.5.4 The lights shall be activated when the battery switch is on and the respective compartment door is opened.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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93.0 REAR COMPARTMENT: A rear compartment shall be provided. The rear compartment dimensions shall be 40.00" wide x 85.75" high. The depth of this compartment shall be determined by the width of the compartment behind the rear wheels.

93.1 This compartment shall include two (2) adjustable, removable vertical dividers and two (2) adjustable shelves.

93.2 Exact sizes and locations to be determined at pre-construction conference.

93.3 This compartment shall include two (2) white, 12 volt DC LED compartment light strips.

93.3.1 Two (2) strip lights installed vertically in each compartment opening per the latest NFPA requirements.

93.3.2 Maximum height light fixtures shall be installed based on interior dimensions and clearances.

93.3.3 The lights shall be activated when the battery switch is on and the respective compartment door is opened.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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94.0 ROLL UP DOORS: Nine (9) roll up doors shall be furnished and installed on the body. They shall be double faced, aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by AMDOR, or equal.

94.1 Doors shall be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface. The slats shall be connected with a structural driven ball and socket hinge design. The slats shall be mounted in reusable slat shoes with positive snap-lock securing.

94.2 Each slat shall incorporate a weather tight recessed dual durometer seals.

94.3 The doors shall be mounted in a one piece aluminum side frame with recessed side seals. All

seals shall be manufactured utilizing non-marring materials.

- 94.4 Bottom panel flange of roll up door shall be equipped with two (2) cut outs to allow for easier access with gloved hands.
- 94.5 A stainless steel lift bar shall be provided for opening the door and located at the bottom of the door with latches on the outer extrusion of the door frame.
- 94.6 Each roll up door shall have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door.
- 94.7 The header for the roll up door assembly shall not exceed 4.00".
- 94.8 A heavy duty magnetic switch shall be used for control of the open compartment warning lights.
- 94.9 Drip pans shall be provided on all roll up door headers.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 95.0 ROOF CONSTRUCTION:** The roof shall be constructed of 3003 aluminum alloy tread plate, bright finish. The roof shall be supported with aluminum alloy tubing. 6061 aluminum alloy tubing welded in place approximately 16.00" on center shall support the roof. The perimeter shall be covered with a 2.00" tread plate trim panel.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 96.0 MOUNTING TRACKS:** Installed in all of the storage compartments on the vehicle shall be mounting tracks for accessories such as trays and shelves.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 97.0 FRONT BODY PROTECTION:** A polished aluminum tread plate shall be provided on the entire front sheet of the body. The edges of the tread plate shall be completely caulked before installation to prevent corrosion.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

- 98.0 RUB RAIL:** The bottom edge of the side compartments shall be trimmed with a bright aluminum extruded rub rail. Trim shall be a minimum of 2.00" high with a 1.38" flange turned outward. The rub rail shall be mounted with fasteners providing for field replacement. The rub rail shall not be mounted directly to the body. Dielectric isolation shall be provided for the fasteners.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

99.0 COMPARTMENT FINISH: All exterior body module compartments shall have Dual Action Sanded (DA) aluminum finish.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

100.0 STAINLESS DOOR SILLS: Stainless steel door sill protection shall be provided on the lower outside edge of all exterior entry and compartment door frames.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

101.0 DRIP RAILS: Drip rails shall be extruded, bright anodized aluminum. Drip rails shall be installed over each exterior compartment. All drip rails shall be field replaceable.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

102.0 WHEEL WELL LINERS: Aluminum, removable, full wheel well liners shall be provided and painted black. The wheel well shall not interfere with the OEM manufacturer's wheel and tire clearance and accommodate tire chains.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

103.0 BODY FENDER TRIM: Stainless steel fender trim shall be installed around the rear wheel openings.

103.1 A rubber barrier shall be installed between the body and the stainless fender trim to seal the seam against moisture.

103.2 A dielectric barrier shall be provided between the fender trim fasteners and the body.

103.3 The stainless steel fender crown shall extend outside of the specified wheel/tire package and provide adequate clearance for automatic snow chains as well as traditional log chain style tire chains.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

104.0 LICENSE PLATE HOLDER: The license plate frame shall be installed on the driver's side rear module body and illuminated with a LED light.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

105.0 AWNING: A Zip Dee Century, or equal, automatic lateral arm, roll-up style awning made of a fire retardant type of material shall be provided, one (1) on each side for a total of two (2). The awnings shall be stored in a metal housing on the side of the body when not in use. When fully extended, the awnings shall be self-supporting.

105.1 The awnings shall have air piston support arms. The electric roller shall be stopped at any extension desired up to nine (9) feet. When the motor stops, the awnings shall lock open, securely and automatically.

105.2 The awnings shall be remote controlled with a manual back-up and fixed electronic panel in the event that a remote controller is misplaced or broken.

105.2.1 Exact location of the fixed electronic panel to be determined at pre-construction conference.

105.3 An anemometer shall be provided to signal a high wind condition for automatic retraction.

105.4 The awnings shall be the full length of the body. It shall extend outward approximately nine (9) feet from the body. The metal housing shall be painted body color.

105.5 The awnings shall be installed on the driver and passenger side at the top of the body.

105.6 Exact color of the awning canvas to be determined at pre-construction conference.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

106.0 STORAGE RACKS FOR SPARE SCBA BOTTLES: A storage rack shall be provided in the compartment on the passenger side rear. The rack shall hold 40 spare Self Contained Breathing Apparatus (SCBA) bottles (MSA G1 4500 psi). The rack shall be constructed of .12" aluminum with DA finish.

106.1 The rack shall be unpainted, and a rubber bumper shall be provided on the rear wall of each slot to absorb the shock of the bottle being placed in there. A non-scutt tape material shall be applied to the bottom on the inside of each slot to reduce scratching

bottles.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

107.0 EXTERIOR COMPARTMENT SHELVING: All shelving shall be adjustable through a track system. Tracks shall be permanently mounted with fasteners to the interior compartment skin.

107.1 Adjustable shelves shall be box pan formed of aluminum and corners shall be welded.

107.2 Shelves shall be securely mounted to heavy gauge aluminum tracks.

107.3 Rubber matting shall be included on each shelf.

107.4 The following quantities of slide/tilt trays, tool boards and floor mounted slide out trays shall be supplied and located as below:

107.4.1 Compartment forward of rear wheels shall have two (2) slide/tilt trays per side for a total of four (4) slide/tilt trays.

107.4.1.1 Trays shall extend over the frame rails to the center of the body each.

107.4.2 Compartment forward of the rear axle shall have two (2) adjustable slide-out trays, one (1) per side. Exact mounting locations to be determined at pre-construction conference.

107.4.3 The compartment towards the cab shall have a floor extension on each side with a vertical tool board mounted to a slide tray that will open to either side. The vertical tool board shall be of adequate height and size to accommodate eight (8) MSA G1 4500 psi SCBA's, four (4) per side.

107.4.4 Two (2) floor mounted slide out trays shall be provided in the compartment forward of the rear wheels. Tray shall be rated for 500 lbs. capacity.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

108.0 REAR BUMPER: A formed rear bumper of aluminum tread plate shall be provided at the rear if the body. Bumper shall be approximately 13.00" deep and 90.00" wide.

108.1 A kick plate shall be provided extending up the wall of the rear body approximately 3.00".

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

109.0 REAR ACCESS LADDER: An access ladder, constructed of aluminum rungs and extruded aluminum rails, shall be provided on the right side at the rear of the apparatus.

109.1 The inside climbing area of the ladder shall be 16.00" wide.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

110.0 GENERATOR: There shall be a Marathon Electric Lima-MAC, or equal, chassis frame mounted generator driven by a power take off (PTO) attached to the side of the transmission.

110.1 Generator shall have a continuous duty rating of a minimum of 40,000 Kw.

110.2 120v/240 vac Four (4) wire plus ground wiring, with soft start feature if necessary.

110.3 Generator shall be a 120vac Single (1) phase/ 240 vac Three (3) Phase unit with appropriate wiring configuration.

110.4 Nominal Cycle: 60 Hertz.

110.5 Nominal Amp Rating: 120 Amps at 240 vac.

110.6 The generator shall be operated with a shift control located inside the cab with the exact mounting location to be determined at pre-construction conference. This operation shall only occur when the unit is in neutral.

110.7 An indicator light shall be provided to note engagement. The output of the generator shall be controlled by an electronic engine governor.

110.8 Generator engagement speed shall meet the requirements of the generator manufacturer and air compressor manufacturer.

110.9 Generator operating RPM shall be appropriate for the specified air compressor.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

111.0 INSTRUMENTATION: Generator and engine gauges shall be flush mounted in an appropriately sized located electrical panel near the load center. All instrumentation used shall be accurate within +/- (2) percent.

111.1 The following gauges and indicators shall be installed in the panel:

111.1.1 One (1) Voltmeter

111.1.2 Three (3) Ammeters

111.1.3 One (1) Frequency Meter

111.1.4 One (1) Hour Meter, non-resettable

111.1.5 One (1) "Power On" Green Indicator Light

111.1.6 One (1) PTO Engagement Indicator Light

111.1.7 Fuses for gauge protection

111.1.8 Check Engine Indicator and Alarm

111.1.9 Check Transmission Indicator and Alarm

111.2 A three (3) phase load center shall be provided with main circuit board.

111.3 The generator shall be mounted under the body between the frame rails.

111.4 There shall be a generator remote start/stop switch with indicator light.

111.4.1 Exact mounting location to be determined at pre-construction conference.

111.5 A circuit breaker panel shall be located in the body. Exact location shall be determined at pre-construction conference.

111.6 A stainless steel splash guard shall be installed around the generator to protect the generator from road debris.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

112.0 ELECTRIC CORD REEL: A Hannay Series 1600, or equal, cord reel wired for four (4) conductor cord. The reel shall be provided with a 12 volt electric rewind switch that is guarded to prevent accidental activation. The push button switch shall be protected with a fuse and installed at a height not to exceed 72.00" above the ground.

112.1 A captive roller assembly shall be provided with the reel. A ball stop shall be provided.

112.2 A label shall be provided in a readily visible location adjacent to the reel. The label shall indicate current rating, current type, phase, voltage and total cord length.

112.3 200 feet of 10/4 electrical cordage shall be included with the reel.

112.4 Akron EJB, or equal, direct wire electrical junction box with three (3) L5-15 amp receptacles and one (1) L6-30 amp receptacle.

112.5 Storage provisions shall be provided for the junction box and mounted to the body inside of the compartment. Exact mounting location to be determined at pre-construction conference.

112.6 Exact location of the cord reel to be determined at pre-construction conference.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

113.0 CASCADE STORAGE VESSELS: The breathing air cascade system shall meet National Fire Protection Association (NFPA) requirements for a compressed air system that is used to provide air for human respiration and self-contained breathing apparatus. It shall be capable of operating in a range of ambient temperatures between 0 degrees and 125 degree Fahrenheit, with a relative humidity up to and including 100 percent.

113.1 All flexible hosing shall be installed without excessive bends and to prevent cuts, abrasions, and temperatures. Also, the hose shall be installed to allow its replacement without requiring removal of major vehicle components or equipment.

113.2 The breathing air system shall be easy to maintain, with arrangement of components that allows easy inspections, servicing calibrations, and adjustments without removing components.

113.3 Two (2) complete paper manuals and two (2) CD copies, if available, that document the operation and maintenance of the system shall be provided.

113.4 All major components in the breathing air system including accessories shall be clearly identified and labeled. Appropriate caution and warning labels shall be affixed where necessary to allow the equipment to be safely operated and maintained.

113.5 The Cascade system shall consist of the following major components:

113.5.1 Eight (8) Storage Vessels

113.5.2 Eight (8) Storage Vessels Shutoff Valves

113.5.3 Eight (8) Storage Vessels Relief Devices

113.5.4 Storage Vessels Mounting Racks

113.5.5 Eight (8) Inlet/Outlet Connections

113.6 The Cascade storage vessels shall each be rated for 6000psi. These vessels shall be designed and constructed to conform to the requirements of the United Nations (UN) on the transportation of dangerous goods. Each vessel shall hold 510.50 cubic feet of air at rated pressure, for a total system volume of 4,084 cubic feet. Each vessel shall be equipped with a UN shutoff valve and built in burst disc pressure relief device.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

114.0 SCBA FILL STATION: A Bauer model CFS5.5-3M, or equal, three (3) position containment type fill station shall be provided. The cylinder holders shall be lined for cylinder protection. A pneumatic safety interlock shall be provided.

114.1 The loading position from the compartment door to the fill holder shall accommodate MSA G1 4500 psi bottles.

114.2 This fill station shall be located in the driver side rear compartment.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

115.0 COMPRESSOR SYSTEM. The compressor shall be a Bauer, or equal, five (5) stage breathing air compressor.

- 115.1 The compressor shall be air cooled; oil lubricated five (5) stage, single acting, reciprocating, continuous duty cycle compressor.
 - 115.1.1 An intercooler shall be provided after each stage of compression.
 - 115.1.2 An after cooler shall be provided after the final compression stage.
 - 115.1.3 The coolers shall be individually detachable from the compressor and located in the airflow of the cooling fans, and be made of corrosion resistant material.
 - 115.1.4 A cool down cycle shall not be required prior to stopping the compressor.
- 115.2 A separator shall be supplied after each stage of compression, excluding the first stage and a coalescing separator shall be supplied after the final stage of compression.
 - 115.2.1 An automatic condensate drain (ACD) system shall be supplied for all of the separators.
 - 115.2.2 Adjustable drain timers shall be factory preset to drain the separators approximately every fifteen (15) minutes for approximately six (6) seconds.
 - 115.2.3 The ACD shall unload the compressor on shutdown for an unloaded restart.
 - 115.2.4 An exhaust muffler and condensate reservoir shall be supplied.
 - 115.2.5 Manually operated valves shall be supplied to override the ACD for test and maintenance purposes.
- 115.3 The compressor shall be lubricated by a combination splash and pressure lubrication system.
 - 115.3.1 The final stage of compression shall be pressure lubricated.
 - 115.3.2 The other stages and the driving gear shall be splash lubricated.
 - 115.3.3 The pressure lubrication circuit shall include a positive displacement oil pump, belt driven by the crankshaft, and include an inline oil filter and a pressure regulator.
 - 115.3.4 A dipstick shall be included to check the oil level.

115.3.5 The oil drain for the compressor shall be piped to the outside of the frame.

115.4 The compressor shall be equipped with an inlet filter with a replaceable particulate element.

115.4.1 An inlet filter maintenance indicator shall be installed on the instrument panel.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

116.0 ELECTRIC MOTOR DRIVE: The appropriately sized electric motor shall be selected to power the proposed compressor. The compressor and motor shall be mounted on a common base that is vibration isolated from the systems main frame.

116.1 The compressor and motor shall be arranged either in a vertical or horizontal position.

116.2 Power from the motor shall be transmitted to the compressor by a V-belt.

116.2.1 The V-belt drive shall be designed to tighten the drive belts automatically.

116.3 Rotation arrows shall be affixed in conspicuous places on the compressor.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

117.0 ELECTRICAL CONTROL: The motor control center (MCC) and the electrical panel installed in the MCC shall be built in compliance to U.L.'s Industrial Control Panel Custom Builders Program and shall be affixed with a U.L. Label.

117.1 An "On/Off" selector switch shall be installed on the instrument panel. When the selector switch is in the "On" position, the system shall automatically start and stop to maintain the system's operating pressure between the high and low set points of the system's final pressure switch.

117.2 The compressors oil pressure shall be monitored by a pressure switch and pressure gauge.

117.2.1 The system shall shut down and a fault light shall illuminate should the oil pressure drop below the factory preset value during operation.

117.3 A temperature switch shall be supplied on the discharge line of the final stage of compression.

117.3.1 The system shall shut down and a fault light will illuminate should the final stage discharge temperature exceed the set temperature.

117.4 All fault lights shall be installed in the instrument panel and shall be red in color. Each fault light shall be labeled accordingly.

117.5 The air compressor shall be equipped with a shutdown interface that requires the compartment doors to be open during operation.

117.6 A temperature sensing device shall actuate and an audible and visual alarm shall sound at the fill station operator's panel when ambient temperature exceeds 140 degrees.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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118.0 PURIFICATION SYSTEM: The purification system shall be rated to process 90,000 cubic feet of air.

118.1 The purification system shall purify high pressure air to a quality that meets or exceeds the requirement of CGA Pamphlet G-7, Compressed Air for Human Respiration, ANSI-CGA G-7.1, Commodity Specification for Air, Grade E and all other recognized standards for breathing air.

118.2 The pressure purification chambers shall have a working pressure of 6,000 psig.

118.2.1 The purification system shall utilize replaceable cartridges.

118.2.2 The purification system shall be designed so that the replacement of the cartridges can be accomplished without disconnecting any system piping.

118.2.3 The design of the chambers shall preclude the possibility of operating the system without cartridges installed or with improperly installed cartridges.

118.2.4 A bleed valve shall be provided and a check valve shall be supplied downstream of the purification system to maintain a positive back pressure.

118.2.5 A check valve shall be supplied between the coalescing separator on the compressor's discharge line and the purification system.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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119.0 MOISTURE MONITOR: The purification system shall include Bauers Securus Electronic Moisture Monitor System, or equal.

119.1 A sensor shall be located in the cartridge for direct monitoring of the moisture level.

119.2 A display module shall be supplied to indicate the status of the cartridge.

119.3 The display module shall be installed on the instrumentation panel.

119.4 A moisture monitoring system shall warn the operator in advance of the impending saturation of the cartridge.

119.5 The system shall shut down automatically should the operator fail to change the cartridge within

the warning period.

119.6 The system shall not be capable of restarting until the saturated cartridge is replaced.

119.7 The moisture monitoring system shall be a failsafe design.

119.7.1 Should the electrical contact between the display module and sensor be disconnected, an immediate fault shutdown shall be affected.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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120.0 CARBON MONOXIDE ALARM AND MONITOR: A carbon monoxide monitor and alarm shall be provided with the following features:

120.1 A panel meter with a 0-50ppm scale.

120.2 Detection of carbon monoxide shall be by electrochemical oxidation.

120.3 The sensor shall operate continuously at 0-60% relative humidity with no additional humidification required.

120.4 The alarm set point shall be factory preset to ten (10) ppm and be adjustable.

120.5 The monitor shall be supplied with a regulation panel to supply the monitor with the proper pressure and flow rate.

120.6 An air inlet shall be provided front the outlet side of the last chamber on the purifier and after the back pressure valve.

120.7 The monitor shall not deplete the pressure on the purifier.

120.8 The regulation panel shall have a rated inlet of 6,000 psig and will reduce this pressure to a nominal pressure of five (5) psig.

120.9 The flow meter with flow valve shall be provided to adjust the flow rate to 200 cc per minute.

120.10 The regulation panel shall be provided with a selector valve to allow either purified air or calibration gas to be routed to the monitor.

120.11 Both purified air and calibration gases shall be permanently connected to the regulation panel so that either may be immediately routed to the monitor by means of a selector valve.

120.12 A calibration gas cylinder shall be provided and mounted as an integral part of the regulation panel.

120.12.1 The mounting bracket shall be designed to hold the cylinder securely and allow for a change of cylinders when empty.

120.12.2 A relief valve set at five (5) psig shall be provided on the outlet of the regulation panel, or the inlet of the monitor to prevent damage to the monitor sensor from over pressurizing.

- 120.12.3 Purified air to be sampled shall be piped to the regulation panel directly from the purifier outlet, after the back pressure valve.
- 120.12.4 High carbon monoxide levels shall trigger both audible and visual alarms.
- 120.12.5 This system shall be connected to the vehicles electrical system.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

121.0 INSTRUMENTATION FOR COMPRESSOR: Instrumentation shall include:

- 121.1 A pressure gauge for the compressor oil pressure.
- 121.2 A pressure gauge for the interstage pressures.
- 121.3 "On/Off" selector switch.
- 121.4 An hourmeter, non-resettable.
- 121.5 An inlet filter maintenance indicator.
- 121.6 A power on light.
- 121.7 The air purification/moisture monitoring display module.
- 121.8 Fault lights.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

122.0 TESTING AND DOCUMENTATION: The system shall be tested by the compressor manufacturer prior to shipment. A copy of the manufacturers test report shall accompany the system at shipment.

- 122.1 A manufacturer's nameplate shall be securely affixed to the systems frame in a conspicuous location. The nameplate shall include, at a minimum:
 - 122.1.1 Manufacturers name
 - 122.1.2 Model number
 - 122.1.3 Serial number
 - 122.1.4 Compressor block number

- 122.1.5 System operating pressure
- 122.1.6 Compressor operating speed
- 122.1.7 Compressor capacity
- 122.1.8 Charging rate
- 122.1.9 Motor horsepower
- 122.1.10 Voltage
- 122.1.11 Frequency
- 122.1.12 Amperage
- 122.1.13 Date of manufacture

122.2 A documentation package shall be supplied with the system. The documentation package shall include, at a minimum:

- 122.2.1 Operation and Instruction Manuals
- 122.2.2 Maintenance Manuals
- 122.2.3 Recommended spare parts list
- 122.2.4 Warranty information
- 122.2.5 Start-up/ registration forms

122.3 The Operators, Instruction and Maintenance Manual shall be as detailed as possible, and outline all operations and maintenance instructions.

- 122.3.1 The manual shall include detailed illustrated drawings for the compressor block and all system components along with a complete parts list for all illustrated components.
- 122.3.2 Warning and safety precautions shall be identified clearly.

<p style="text-align: right;">Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>

123.0 SPECIAL ELECTRICAL CONNECTION: A 240 volt, 100 amp, four (4) pole, four (4) wire, pin and sleeve type receptacle, rated for up to 30 horsepower shall be wired to the power supply and located in an accessible area within sight of the compressor. This plug shall be to power the compressor without the apparatus running. An appropriate transfer switch shall be supplied if necessary.

- 123.1 A mating horsepower rated plug, wired to a four (4) conductor cord, four (4) pole, rated for 600 volts, thirty (30) feet in length, shall be supplied.
- 123.2 This cord shall attach to the existing plug located in designated Fire Stations.
- 123.3 When disconnected from shore power, the cord shall remain attached and stored inside the body.
- 123.4 Arrangements will be made with the successful bidder to see the plug and connection to ensure accuracy.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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124.0 HIGH PRESSURE HOSE REEL: A high pressure Hannay, or equal, hose reel, complete with hose and fittings shall be provided. The hose reel shall be rated for 6,000 psi working pressure and be capable of holding 200' of high pressure 0.51" outside diameter hose.

- 124.1 The hose reel shall include the following features:
- 124.1.1 Side disk with rolled edges and concentric reinforcing ribs
 - 124.1.2 Roll formed drum with a full length weld
 - 124.1.3 A bearing to support the axle at each end of the reel
 - 124.1.4 Full length reel axle
 - 124.1.5 Swivel joint inlet that permits the reel to rotate freely while connected
- 124.2 The reel shall be equipped with a 12 volt DC electric rewind motor operated by a push button which is guarded.
- 124.2.1 The switch shall be installed at a height not to exceed 72.00" above the operators standing position.
 - 124.2.2 A properly rated circuit breaker shall be provided to protect the rewind motor against short circuits and overload.
 - 124.2.3 A 12 volt fuse shall protect the rewind control circuit.
- 124.3 A captive roller assembly shall be provided. A ball stop shall be provided.
- 124.4 The reel shall be equipped with 200' of Parflex, or equal, breathing air fill hose with a 24,000 lb. burst rating.

- 124.4.1 The fill hose shall consist of two (2) sections of 100' each with unions.
- 124.4.2 The hose end shall have a female CGA 347 swivel connector and line valve equipped with a bleed off.
- 124.4.3 A metering valve shall be provided on the supply side of the hose reel which will be preset to prevent excessive flow rate in the event of failure.
- 124.4.4 A bleed valve shall be provided on the supply side next to the reel rewind switch to bleed pressure off.
- 124.4.5 To monitor the pressure in the reel, a gauge and valve shall be furnished at the air control panel.
- 124.4.6 The reel air shall pass through the standard supplied regulator on the air control panel which will provide 6,000psi maximum pressure.

124.5 A label in a conspicuous location adjacent to the reel shall indicate that the air is for breathing, operating pressure, total hose length and hose size.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

125.0 LOOSE EQUIPMENT: One (1) bag of chrome, stainless steel and/or cadmium plated screws, nuts bolts and washers used in the construction of the unit shall be supplied.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

126.0 GENERAL WIRING: All 12-volt wiring harnesses installed by the apparatus manufacturer shall conform to the following specifications:

- 126.1 SAE J1128 - Low tension primary cable.
- 126.2 SAE J1292 - Automobile, truck, truck-tractor, trailer and motor coach wiring.
- 126.3 SAE J163 - Low tension wiring and cable terminals and splice clips.
- 126.4 SAE J2202 - Heavy duty wiring systems for on-highway trucks.
- 126.5 NFPA 1901 - Standard for automotive fire apparatus.
- 126.6 FMVSS 302 - Flammability of interior materials for passenger cars, multipurpose passenger vehicles, trucks and buses.
- 126.7 SAE J1939 - Serial communications protocol.

126.8 SAE J2030 - Heavy-duty electrical connector performance standard.

126.9 SAE J2223 - Connections for on board vehicle electrical wiring harnesses.

126.10 NEC - National Electrical Code.

126.11 SAE J561 - Electrical terminals - Eyelet and spade type.

126.12 SAE J928 - Electrical terminals - Pin and receptacle type A.

126.13 Harnesses shall be routed throughout the cab and chassis in a manner which allows the harnessing to be laid into its mounting location.

126.13.1 Routing of harnessing which requires pulling of wires through tubes shall not be allowed.

126.13.2 Wiring shall be run in loom or conduit where exposed, and have grommets or other edge protection where wires pass through metal.

126.13.3 Wiring shall be color, function and number coded.

126.13.4 Wire colors shall be integral to each wire insulator and run the entire length of each wire.

126.14 Harnessing containing multiple wires and uses a single wire color for all wires shall not be allowed.

126.15 Function and number codes shall be continuously imprinted on all wiring harness conductors at 2.00" intervals.

126.16 All wiring installed between the cab and into doors shall be protected by an expandable rubber boot to protect the wiring.

126.17 Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids.

126.18 Electrical wiring and equipment shall be installed utilizing the following guidelines:

126.18.1 All wire ends not placed into connectors shall be sealed with a heat shrink end cap.

126.18.2 Wires without a terminating connector or sealed end cap shall not be allowed.

126.18.3 All holes made in the roof shall be caulked with silicon.

126.18.4 Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof.

126.18.5 Any electrical component that is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it.

126.18.6 Exposed area shall be defined as any location outside of the cab or body.

126.18.7 Electrical components designed to be removed for maintenance shall be accessible.

126.18.8 A minimum of a three (3) foot service loop shall be provided behind the appliance to allow them to be pulled away from the mounting area for inspection and service work.

- 126.18.8.1 Corrosion preventative compound shall be applied to non-waterproof electrical connectors located outside of the cab or body.
- 126.18.8.2 All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation of the plug.
- 126.18.8.3 Any lights containing non-waterproof sockets in a weather-exposed area shall have corrosion preventative compound added to the socket terminal area.
- 126.18.8.4 All electrical terminals in exposed areas shall have DOW 1890 or equal protective coating applied completely over the metal portion of the terminal.
- 126.18.8.5 Rubber coated metal clamps shall be used to support wire harnessing and battery cables routed along the chassis frame rails.
- 126.18.8.6 Heat shields shall be used to protect harnessing in areas where high temperatures exist.
- 126.18.8.7 Harnessing passing near the engine exhaust shall be protected by a heat shield.
- 126.18.8.8 Cab and crew cab harnessing shall not be routed through enclosed metal tubing.
- 126.18.8.9 Dedicated wire routing channels shall be used to protect harnessing therefore improving the overall integrity of the vehicle electrical system.
- 126.18.8.10 The design of the cab shall allow for easy routing of additional wiring and easy access to existing wiring.
- 126.18.8.11 All braided wire harnesses shall have a permanent label attached for easy identification of the harness part number and fabrication date.
- 126.18.8.12 All chassis harnessing shall be connected to the cab through sealed bulkhead connectors inside the chassis frame rails (No Exceptions).

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

127.0 ELECTRICAL COMPONENT INSTALLATION: All lighting used on the apparatus shall be, at a minimum, a two (2) wire light grounded through a wired connection to the battery system.

127.1 Lights using an apparatus metal structure for grounding shall not be allowed.

127.2 An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

127.3 The results of the tests shall be recorded and provided to the purchaser at time of delivery.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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128.0 REAR CAMERA: The vehicle shall include an Audiovox, or equal, color backup, one (1) camera system, mounted on the exterior of the module over the rear compartment door with an air deflector included.

128.1 The camera system shall be wired to turn on when the vehicle is placed in reverse.

128.1.1 The camera system shall be fed to the cab to an approximate 7.00" LCD full color display screen that is mounted from the ceiling, centered between the visors.

128.1.2 Exact location to be determined at pre-construction conference.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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129.0 SIREN, SPEAKERS, and AIR HORNS: The unit shall be equipped with a Whelen #295SLSA1 noise cancelling microphone.

129.1 The siren shall be ignition powered and shall provide hands free control feature that allows switching between three siren modes and siren off from the horn ring.

129.2 Siren mode choices shall be user programmable from 17 different Scan-Lock siren tones, and a remote Siren/Horn switch shall be provided on driver's control panel.

129.3 The vehicle shall be equipped with two (2) Cast Products #SA5403-1M2-1, or equal, polished aluminum speakers recessed in the outboard chrome OEM bumper ends.

129.4 Two (2) Grover Stuttertone, or equal, chrome finish air horns shall be provided, mounted on the cab fenders and piped to the chassis air tank system.

129.4.1 Two (2) foot pedals shall be provided for operation of the air horns.

129.4.1.1 One (1) pedal on the driver side in the floorboard.

129.4.1.2 One (1) pedal on the passenger side in the floorboard.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

130.0 BACKUP ALARM: The vehicle shall be equipped with an electric back-up alarm that shall produce a minimum of 97 decibels. A momentary cut-off switch with automatic reset feature shall be provided.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

131.0 EMERGENCY SEQUENCER/LOAD MANAGER: The emergency light switching system shall incorporate a built in sequencer that turns on and off the emergency loads at one/half second intervals. A built in electrical load manager shall be preprogrammed to shut down pre-selected and/or non-essential loads in priority order as needed to maintain sufficient charge in the 12VDC system.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

132.0 EMERGENCY LIGHTING ON BODY: Whelen M9 emergency lights shall be furnished and installed on the body in the following locations:

132.1 Four (4) Whelen M9 LED lights, red in color with clear lenses on the sides of the rescue body.

132.1.1 Two (2) shall be on the driver side, with one (1) forward and one (1) to the rear of the body.

132.1.2 Two (2) shall be on the passenger side, with one (1) forward and one (1) to the rear of the body.

132.2 Two (2) Whelen M9 LED lights, red in color with clear lenses on the rear of the rescue body.

132.2.1 Two (2) shall be to the top and outside on each rear corner.

132.3 Two (2) Whelen M9 LED light, amber in color with a clear lens located below the red M9 emergency lights on the outside corners.

132.3.1 These amber lights shall activate with the emergency lights and be tied to the emergency master switch.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

133.0 LIGHTBAR: There shall be one (1) 60.00" Whelen Freedom, Model FN60QLED, LED light bar mounted on the cab roof to include the following:

- 133.1 Four (4) red flashing LED modules facing forward.
- 133.2 Two (2) white flashing LED modules facing forward.
- 133.3 Two (2) red flashing corner LED modules, one in each front corner.
- 133.4 One (1) red flashing LED module facing the driver side.
- 133.5 One (1) red flashing LED module facing the passenger side.
- 133.6 One (1) GTT Model 795 LED Opticom™ traffic light controller with **east coast low priority**
- 133.7 The color of all lenses shall be clear.
- 133.8 There shall be three (3) switches located on a cab switch panel shall control this light bar.
 - 133.8.1 One (1) switch shall control all the warning lights.
 - 133.8.2 One (1) switch shall control the Opticom traffic light controller.
 - 133.8.3 One (1) switch to disable the forward facing white warning lights in inclement weather.
- 133.9 The white warning lights and the traffic light controller shall be disabled when the parking brake is applied.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

134.0 CAB MOUNTED LIGHTS:

- 134.1 Two (2) LED Whelen M7 Series Lights red in color with clear lenses, shall be furnished and installed forward on the fenders, one (1) each side, approximately 55.00" off the ground.
 - 134.1.1 These shall include a chrome bezel.
 - 134.1.2 These lights shall be controlled by the emergency master switch.
- 134.2 Two (2) LED Whelen M7 Series Lights red in color with clear lenses shall be installed in the front grill, approximately 42.00" off the ground, one (1) each side.
 - 134.2.1 These shall include a chrome bezel.
 - 134.2.2 These lights shall be controlled by the emergency master switch.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

135.0 SIDE ZONE LOWER LIGHTING: Four (4) Whelen LED lights shall be located at the following positions:

135.1 Two (2) Whelen M7 LED, one (1) each side, on the deluxe step package.

135.1.1 The color of these lights shall be red LED/clear lens each side.

135.2 Two (2) Whelen M6 LED, one (1) each side on the rear wheel well/fender panel area.

135.2.1 The color of these lights shall be red LED/clear lens each side.

135.3 The above four (4) lights will meet or exceed the lower level optical warning and optical power requirements of NFPA.

135.4 These lights shall activate with the emergency master switch.

135.5 The lights shall be controlled by a lighted switch on the cab instrument panel.

135.6 These lights shall be mounted with a flange.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

136.0 SCENE LIGHTS: The following scene lights shall be furnished and installed on the body as follows:

136.1 Two (2) LED scene lights, Whelen Pioneer Model PFP-1 shall be installed recess mounted, with a 15 degree downward angle in rear of the body as follows:

136.1.1 One (1) on the driver side of the body, as high as possible.

136.1.2 One (1) on the passenger side of the body, as high as possible.

136.1.3 They shall be controlled by switches in the cab switch panel.

136.1.3.1 One (1) switch for Rear Pioneer lights in the cab.

136.1.3.2 One (1) switch on the rear of the apparatus for the Rear Pioneer lights on the rear wall, recess mounted and protected with a weather proof switch.

136.1.3.3 Shall be load managed when the parking brake is set.

136.2 Four (4) LED scene lights, Whelen Model PCPSM2C shall be installed on the body as follows:

136.2.1 Two (2) on each side of the body high on the driver side, one (1) forward and one (1) to the rear.

136.2.2 Two (2) on each side of the body high on the passenger side, one (1) forward and one (1) to the rear.

136.2.3 These lights shall be controlled by switches in the console in the cab, one (1) switch per side.

136.2.4 These lights shall also be switched at the generator panel in the body and marked accordingly with driver's side and passenger side.

136.3 A Whelen Pioneer PFP-1 brow light shall be installed centered on the cab above the windshield.

136.3.1 Shall be controlled through a switch in the cab and labeled "Brow Light."

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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137.0 GROUND LIGHTS: 12" Whelen LED 12 volt weatherproof strip lights, with shield, shall be provided as follows:

137.1 Shall activate when the battery switch is on and the roll up doors are opened.

137.2 Shall activate when the parking brake is applied and when the transmission is placed in reverse.

137.3 Shall be located by a switch in the cab independent of all other functions.

137.5 Shall be activated with the turn signals.

137.5.1 Six (6) light strips shall be provided under the body below each full height roll-up compartment door.

137.5.2 Two (2) below the rear bumper, one (1) per side.

137.5.3 Two (2) under the cab doors, one (1) per side.

<p>Does your bid comply? YES_____ NO_____</p> <p>If "NO", provide explanation:</p>
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138.0 EXTERIOR AUTOMOTIVE LIGHTING: The basic exterior vehicle lighting shall all be LED to include headlights (if available), parking lights, directional signal lights, tail and stop lights, license plate light, back-up lights, hazard warning lights, clearance lights and reflectors, as required by F.M.V.S.S. 571.108. The rear lights shall be installed in chrome housing with four (4) positions, one (1) per side, with individual chrome trim rings per lights as follows:

138.1 Tail Lights, Brake:

138.1.1 The rear lights shall be Whelen M6 Series LED brake/tail.

138.1.2 The lights shall be mounted vertically above the rear diamond plate area.

138.1.3 The lights shall be installed in the upper position on the chrome housing.

138.2 Back-Up Lights: The rear of the module shall be equipped with Whelen M6BUW LED back-up lights.

138.2.1 The lights shall be mounted above the rear diamond plate area in line with the brake/tail lights and lower zone emergency light.

138.2.2 The lights shall be installed in the middle position of the chrome housing.

138.3 A Whelen M6 LED Lower Zone Emergency Light shall be installed in the lowest (bottom) position in the triple light housing.

138.4 Turn Signal: A Whelen M6 LED turn signal light, amber in color, shall be furnished and mounted in the flange with the brake/back-up/ and emergency light on the rear of the body, one each side.

137.4.1 Shall be installed in the second from the top position.

138.5 The front of the body shall have Whelen OS Mini amber LED clearance lights with chrome flanges.

138.6 The side body marker lights and rear clearance lights shall be Whelen OS Mini LED.

138.7 Chrome Housing – The rear Whelen M6 series brake/tail, turn signal, back-up, and lower zone emergency light shall be mounted in vertical four lamp cast aluminum housings.

138.8 PIAA LED Driving lights, or equal, shall be included and installed in the bumper.

138.9 Two (2) LED lights shall be mounted to the rear of the body to illuminate the rear step/tailboard area.

138.10 Two (2) rubber arm, LED marker lights shall be mounted to the rear lower corners of the body and activated with the parking light circuit.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

139.0 LIGHT, INTERMEDIATE: One (1) pair of amber LED turn signal, marker lights shall be furnished and installed, one (1) each side, horizontally in the rear fender panel.

139.1 A stainless steel trim shall be included with this installation.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

140.0 EMI/RFI PROTECTION: The electrical system shall meet, at a minimum, SAE J551/1, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system shall be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source. The apparatus shall have the ability to operate in the

electromagnetic environment typically found in fire ground operations to ensure clean operations. The vehicle OEM, upon request, shall provide EMC testing reports from testing conducted on an entire apparatus and shall certify that the vehicle meets SAE J551/1 requirements. EMI/RFI susceptibility shall be controlled by applying appropriate circuit designs and shielding. The electrical system shall be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing shall be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

141.0 ELECTRICAL HARNESSING INSTALLATION: All 12-volt wiring harnesses shall conform to the following specifications:

- 141.1 SAE J1128 - Low tension primary cable.
- 141.2 SAE J1292 - Automobile, truck, truck-tractor, trailer and motor coach wiring.
- 141.3 SAE J163 - Low tension wiring and cable terminals and splice clips.
- 141.4 SAE J2202 - Heavy duty wiring systems for on-highway trucks.
- 141.5 NFPA 1901 - Standard for automotive fire apparatus.
- 141.6 FMVSS 302 - Flammability of interior materials for passenger cars, multipurpose passenger vehicles, trucks and buses.
- 141.7 SAE J1939 - Serial communications protocol.
- 141.8 SAE J2030 - Heavy-duty electrical connector performance standard.
- 141.9 SAE J2223 - Connections for on board vehicle electrical wiring harnesses.
- 141.10 NEC - National Electrical Code.
- 141.11 SAE J561 - Electrical terminals - Eyelet and spade type.
- 141.12 SAE J928 - Electrical terminals - Pin and receptacle type A.
- 141.13 Harnesses shall be routed throughout the cab and chassis in a manner which allows the harnessing to be laid into its mounting location.
- 141.14 Routing of harnessing which requires pulling of wires through tubes shall not be allowed.
- 141.15 Wiring shall be run in loom or conduit where exposed, and have grommets or other edge protection where wires pass through metal.
 - 141.15.1 Wiring shall be color, function and number coded.
 - 141.15.2 Wire colors shall be integral to each wire insulator and run the entire length of each wire.

- 141.15.3 Harnessing containing multiple wires and uses a single wire color for all wires shall not be allowed.
- 141.15.4 Function and number codes shall be continuously imprinted on all wiring harness conductors at 2.00" intervals.
- 141.15.5 All wiring installed between the cab and into doors shall be protected by an expandable rubber boot.
- 141.15.6 Exterior exposed wire connectors shall be positive locking and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids.
- 141.16 Electrical wiring and equipment shall be installed utilizing the following guidelines:
 - 141.16.1 All wire ends not placed into connectors shall be sealed with a heat shrink end cap.
 - 141.16.2 Wires without a terminating connector or sealed end cap shall not be allowed.
 - 141.16.3 All holes made in the roof shall be caulked with silicon.
 - 141.16.4 Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof.
 - 141.16.5 Any electrical component that is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it.
 - 141.16.6 Exposed area shall be defined as any location outside of the cab or body.
 - 141.16.7 Electrical components designed to be removed for maintenance shall be accessible.
 - 141.16.8 a minimum of a three (3) foot service loop shall be provided behind the appliance to allow them to be pulled away from the mounting area
 - 141.16.9 Corrosion preventative compound shall be applied to non-waterproof electrical connectors located outside of the cab or body.
 - 141.16.10 All non-waterproof connections shall require this compound in the plug .Any lights containing non-waterproof sockets in a weather-exposed area shall have corrosion preventative compound added to the socket terminal area.
 - 141.16.11 All electrical terminals in exposed areas shall have DOW 1890 protective coating applied completely over the metal portion of the terminal.
 - 141.16.12 Rubber coated metal clamps shall be used to support wire harnessing and battery cables routed along the chassis frame rails.
 - 141.16.13 Heat shields shall be used in areas where high temperatures exist.
 - 141.16.14 Harnessing passing near the engine exhaust shall be protected by a heat shield.

- 141.16.15 Cab and crew cab harnessing shall not be routed through enclosed metal tubing.
- 141.16.16 Dedicated wire routing channels shall be used to protect harnessing therefore improving the overall integrity of the vehicle electrical system.
- 141.16.17 The design of the cab shall allow for easy routing of additional wiring and easy access to existing wiring.
- 141.16.18 All braided wire harnesses shall have a permanent label attached for identification of the harness part number and fabrication date.
- 141.16.19 All chassis harnessing shall be connected to the cab through sealed bulkhead connectors inside the chassis frame rails (No Exceptions).

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

142.0 WHEEL CHOCKS: Two (2), Ziamatic Model # SAC-44-E, or equal, wheel chocks shall be provided.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

143.0 WHEEL CHOCK BRACKETS: One (1) pair of horizontal mounting wheel chock brackets shall be provided for the specified folding wheel chocks.

143.1 The brackets shall be mounted forward of the rear axle on the driver's side.

143.2 Exact mounting locations to be determined at pre-construction conference.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

144.0 PAINT AND FINISH: The exterior custom body painting finishing process as follows:

- 144.1 Manual Surface Preparation - All exposed metal surfaces on the custom body shall be thoroughly cleaned and prepared for painting. Surfaces that shall not be painted include all chrome plated, stainless steel, anodized aluminum and bright aluminum tread plate. Each imperfection on the exterior metal surface shall be removed or filled and then sanded smooth. All seams shall be sealed before painting.
- 144.2 Chemical Cleaning and Treatment - The metal surfaces shall be properly cleaned using an acid etching system. Surfaces are chemically cleaned to remove all dirt, oil, grease and metal oxides. An ultra-pure water final rinse shall be applied to all metal surfaces, excluding undercarriage components, at the conclusion of the metal treatment process.
- 144.3 Sealer Primer Coat - A two (2) component sealer primer coat shall be applied.
- 144.4 Topcoat Paint - Urethane base coat shall be applied to opacity for correct color matching.
- 144.5 Clearcoat - Two (2) coats of an automotive grade two (2) component urethane shall be applied.
- 144.6 Roll-up doors -shall not be clear coated and the standard roll-up door warranty shall apply.
- 144.7 All removable items such as brackets, compartment doors, door hinges, trim, etc. shall be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly shall be finish painted before assembly.
- 144.8 The entire chassis shall be painted by the apparatus manufacturer to ensure a good color match between the body and chassis.
- 144.9 The cab shall be two-tone, with the upper section painted white (upper cab) and lower section of the cab and body painted yellow (lower cab and body).
- 144.10 The apparatus shall be painted to match current apparatus fleet.
 - 144.10.1 Exact colors to be communicated to successful bidder.
- 144.11 Prior to reassembly and reinstallation of lights, handrails, door hardware and any miscellaneous body items, an isolation tape or gasket material must be used to prevent damage to the finish painted surfaces (no exceptions).
- 144.12 A nylon washer shall be installed under each acorn nut or metal screw that is fastened directly to a painted body surface.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

145.0 PAINT - ENVIRONMENTAL IMPACT: Contractor shall meet or exceed all current State regulations concerning paint operations. Pollution control shall include measures to protect the atmosphere, water and soil. Controls shall include the following conditions:

- 145.1 Topcoats and primers must be chrome and lead free.
- 145.2 Metal treatment chemicals must be chrome free. The wastewater generated in the metal

treatment process must be treated to remove any other heavy metals.

- 145.3 Particulate emissions from painting operations must be collected by a dry filter or water wash process.
- 145.4 Solvents used in clean-up operations must be collected, sent off-site for distillation and returned for reuse.
- 145.5 The finished apparatus shall not be manufactured with or contain products that have ozone depleting substances. Contractor shall, upon demand, present evidence that his manufacturing facility meets the above conditions and that it is in compliance with his State EPA rules and regulations.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

146.0 PAINT CHASSIS FRAME ASSEMBLY: The chassis frame assembly shall remain the color and paint quality as received from the chassis manufacturer.

- 146.1 The frame and components shall not be repainted and left as provided painted black.
- 146.2 Components that are considered part of the frame assembly are frame rails, cross members, axles, suspension, steering gear and the fuel tank only.

Does your bid comply? YES_____ NO_____
If "NO", provide explanation:

147.0 GRAPHICS AND LETTERING: The following lettering and graphics shall be provided:

- 147.1 Reflective striping/lettering shall be provided as follows:
 - 147.1.1 REFLECTIVE STRIPES: Three (3) reflective stripes shall be provided across the front of the vehicle, along the sides of the cab and along the sides of the body with a 135 degree jog up and another 135 degree jog towards the rear.
 - 147.1.1.1 The reflective band shall consist of a 1.00" blue stripe at the top with a 1.00" gap that is white; then a 6.00" blue stripe with a 1.00" gap that is white; and a 1.00" blue stripe on the bottom.
 - 147.1.1.2 The reflective band provided on the cab face shall be just below the headlight level.
 - 147.1.1.3 Exact layout and location to be determined at pre-construction conference.
- 147.2 3M or equal Diamond grade chevron striping, 6.00" wide, shall be installed on the rear of the body excluding the rear roll-up door. Colors: Red and Fluorescent Yellow.
- 147.3 A quantity of sixty eight (68) letters or numbers, 5.00 to 7.00" high, gold reflective letters or numbers with blue outline and shade shall be provided on body sides. Examples shall be provided to successful bidder.
- 147.4 Two (2) Chesterfield Fire and EMS door decals shall be installed on the cab doors by the contractor, examples shall be provided.

147.5 The following labels and placards shall be provided with this vehicle:

147.5.1 ULTRA LOW SULPHUR DIESEL ONLY

147.5.2 DEF Fluid Only

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

148.0 SERVICE PARTS INTERNET SITE: The service parts information included in this manual are also available on the factory website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.

149.0 Two (2) YEAR MATERIAL AND WORKMANSHIP: The apparatus shall be provided with a minimum two (2) year bumper to bumper apparatus material and workmanship warranty.

149.1 The warranty shall cover such portions of the apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.

149.2 A copy of the warranty certificate shall be submitted with the bid package.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

150.0 TEN (10) YEAR PRO-RATED PAINT AND CORROSION: The apparatus shall be provided with a ten (10) year pro-rated paint and corrosion warranty on the apparatus cab and body.

150.1 The warranty shall cover painted exterior surfaces of the cab and body to be free from blistering, peeling, corrosion, or any other adhesion defect caused by defective manufacturing methods or paint material selection that would arise under normal use and service.

150.2 A copy of the warranty certificate shall be submitted with the bid package.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

151.0 TEN (10) YEAR STRUCTURAL INTEGRITY: The apparatus shall be provided with a ten (10) year material and workmanship warranty on the apparatus body.

151.1 The warranty shall cover such portions of the apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.

151.2 A copy of the warranty certificate shall be submitted with the bid package.

Does your bid comply? YES_____ NO_____

If "NO", provide explanation:

END OF SPECIFICATIONS